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STANDARDS IN JUNIOR COLLEGE

SCHOOL RECREATION

ABLER LEARNERS

INTEGRATING BIOLOGY AND SPANISH

SYMPOSIUM THIS MONTH

DR. CONANT AND THE JUNIOR HIGH SCHOOLS:

A PRELIMINARY DISCUSSION

— Theme for the Year —

NEW LEVELS OF EXCELLENCE FOR THE NEXT DECADE

UNIVERSITY MICROFILMS
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EDITORIAL

NEEDED NEXT STEPS IN FLEXIBLE SCHEDULING

The case for developing a more flexible high school schedule has been made. No serious argument, except difficulty of implementation, has been raised against the idea of so planning the high school day, week, and semester that different subjects in the curriculum may be studied for longer or shorter periods and with more or less frequency according to the nature of the subject to be studied and the particular needs of those who are studying the subject. Thoughtful administrators and teachers in countless schools across the land are hard at work to make the adjustments in their schedules which clamor for attention. It is easy enough to sit on the sidelines, urging schools to change schedules, to add periods and to lengthen the school day so that pupils may devote more time to mathematics and science, and add a foreign language to an already crowded curriculum. It is quite another matter to make these changes in view of what happens to an already strained budget and to heavily overloaded teachers. The problem is so difficult that no one, least of all the public, should be led to expect a simple, fully workable solution tomorrow. Nonetheless everyone is agreed on the need to solve the thorny problem of how to make a high school schedule that is more flexible.

Two Major Fronts Need Attention

What are the requirements of highest priority if the problem is to be solved? In our judgment, two major fronts may be noted along which it is essential to move simultaneously with all possible vigor if the problem of a flexible high school schedule is to be solved. One is to bring modern technology to bear upon the problem, and the other is to muster our professional knowledge and skill to delineate clearly the kind of flexible arrangements we wish to have in the high school.

Application of Technology—The possibility of using automation in putting the pieces of the high school schedule together needs to be explored. Why should not machines and other fruits of modern technology which have performed miracles in lifting burdens from the backs of men in all walks of life also be used to lighten the most burdensome, time consuming of all tasks in the operation of a high school, the making of the schedule? Teachers, counselors, and administrators should be relieved

of the onerous routine in schedule making, even where present conventional schedules are retained. The added complexities of fitting all pieces together in a truly flexible schedule will necessitate the use of the storing capacities of our largest known computers. Preliminary experimentation underway suggests that the problem of constructing a flexible schedule through the use of high speed electronic computers is capable of solution, but that it is even more complicated than many scheduling problems that have been tackled and solved in business, industry, and government. It appears promising and necessary to push forward with all possible speed to apply what is known about data processing and the use of modern electronic computers to the problems of making the high school schedule.

Educational Planning—Machines, it should be emphasized, can do only what men tell them to do—at least as of this writing. Hence, we need to clarify what we want the machine to do. The machine is neutral. It will make a conventional or an unconventional schedule, depending upon our instructions to it. Thus, the second major front along which we need to move is an analysis of the high school curriculum, subject-matter field by field. How, ideally, would we schedule pupils and teachers in their learning and teaching of each subject if we were freed from the limitations of conventional scheduling? The answer will be difficult for we have so long been following the narrow pathways of conventional schedules that the habit of following the same ruts persists even when we attempt to plan as though they were not there. The clear spelling out of what to tell the machine will in some ways be an even more difficult task than perfecting a machine procedure to carry out our directions. Both jobs are essential and need to be pushed forward simultaneously with all possible vigor.

For the educational planning teams should be established in each of the subject fields taught in high school: each team to consist of several top scholars in the subject, some imaginative curriculum and methodological specialists in the subject, experienced and highly creative high school teachers of the subject, and mature, forward-looking high school administrators. Each of these teams would be responsible to develop a design for the high school curriculum in its subject field, indicating the number of different ability and interest groups that should be provided for, the various sized groups of pupils best suited to different phases of instruction in the subject, the team of teachers and assistants that could best provide the needed instruction and supervision. The teams would work independently part of the time, but also collaborate with teams from other subjects so that both common and unique needs of each field might be identified and so that the pieces might be fitted into a general design.

An encouraging number of subject fields—e.g., mathematics, physics, chemistry, and biology—are being subjected to penetrating analysis by

scholars and teachers. These groups have been bold and imaginative, even radical, in their approach to content, and in some instances to methodology. But they need to add an equal ingredient of boldness in regard to flexible groupings of pupils and in the deployment of teaching resources. They are at present for the most part tending to think too much within the traditional framework of existing schedules of classes.

When these two phases of the problem of scheduling have been explored—perfecting the technology by which the machines can make whatever kinds of schedules we want, and clarifying in our minds what we want so that we can tell the machine what to do—we may then expect a change to take place in the high school which will be as dramatic in its breakthrough as have been the achievements in recent years in the physical and biological sciences.

R. N. B.

SAVING ENGLISH COMPOSITION

Crowded high schools will soon reduce to four a year the average number of English compositions written by students, warns Dr. Paul Diederich of the Educational Testing Service. Since he believes that ability to write can only come from practice in writing, he has devised a plan to reorganize high school English.

Outstanding teachers from all over the country spent this summer at Rutgers University in New Jersey learning, under Dr. Diederich's direction, to become standard bearers of the plan, which will be tested in Detroit and Chicago this fall. The hope is that it will be in widespread use by 1965.

The "Rutgers Plan" Dr. Diederich says, recognizing that high-school English teachers "foolhardy enough to assign students one composition a week" would have to spend every week-day night until midnight, plus nine hours each on Saturday and Sunday, just correcting the papers. This is how he proposes to tackle this:

(1) College-trained housewives are hired to correct compositions, enabling the teacher to assign weekly compositions without sacrificing his eyesight and sanity. The teacher continues to correct at least every fourth paper. "Readers" are now used in some districts.

(2) Each English teacher divides each of his present English classes in half. Half of the class then spends two periods a week in a reading room, where independent reading is encouraged and two hours in discussion session with the teacher. The fifth day in the teacher's week is devoted to individual conferences with students.

On that day, all the students also take tests and work with "programed exercises" (sometimes called "teaching machines") on rules of grammar.

In the "free reading program" teachers will suggest books to be read. Such reading, Dr. Diederich says, "is commonly crowded out during adolescence" when "dating, hot rods, television, dancing, athletics and all the pressures of homework in a college-going program" compete with books.

—*The New York Times*, August 28, 1960.

STANDARDS IN THE COMMUNITY JUNIOR COLLEGE

BY JAMES W. THORNTON, JR.*

Discussions of the community college in recent educational literature have revealed a vast reservoir of good will, together with a good many misconceptions. Some writers consider that the main function of the community college is to relieve the university of its overload, or to screen out those who are "not college material." In other articles, the lower cost to the student in attending a community college causes the institution to be portrayed as providing "a cheap education." Again, the assumption is blithely set forth that "standards" will of course be lower in the community college.

Moreover, there is a tendency to take it for granted that the increase in proportions of young people who attend college has resulted in a lowering of the quality of the college student. It is assumed, in effect, that when only one per cent of the nation's youth entered college, these were the most academically able one per cent. Similarly, when 30 per cent attend, we presume that the 70 per cent of non-attenders are uniformly less intelligent; or that the extravagant numbers who drop out of college leave mainly because they lack the ability to complete the work.

In fairness to the community colleges, to their faculties, and to their students, these assumptions must be examined. They are not only naive and mistaken—they are positive deterrents to the solution of America's problems of higher education in the impending period of rapid expansion. The experience of a half-century has shown that two-year colleges in all parts of the nation provide a high quality of education; that they enroll students of many abilities, some of whom are excellent "college material"; that in later work at universities, community college graduates perform admirably, and enter graduate study in greater proportions than "native" university students.

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The ability stereotype is equally misleading. College students in America have always ranged in intelligence from somewhat below average to brilliant. It is true that a higher proportion of brilliant youth than of dull-normal youth have always attended; it is equally true that even now, fully half of our most intelligent youth, measured by tests or by high school achievement, do not enter college. This failure of bright students to pursue higher education represents a waste of talent which the nation can no longer afford. Much of the coming growth in enrollments will result from the absolute increase in the number of young people of college age, but we must be aware also that the proportion of youth in college at this moment could be doubled without admitting a single applicant with I.Q. below 105!

As pointed out by the Educational Policies Commission, the subaverage youth tends to eliminate himself from college attendance. Our problem is not really that of repelling the incompetent; rather, we must learn how to attract the competent student who now does not enter college. Some of these—perhaps a third of all able non-matriculants—are deterred by the costs of college. Certainly the community college can help to overcome this barrier. A more serious problem is posed by the remaining two-thirds of the group, who simply lack motivation to attend college. Nothing that they know about college attracts them to enroll; and this lack of attraction derives in some measure, certainly, from the limited nature of the typical college or university program.

The community college has developed in America as one part of the answer to these complicated problems of American higher education. Perhaps an examination of its best potentialities will help to demonstrate the fact that the community colleges can be expected *to provide a diversity of educational opportunity of high quality to increasing proportions of post-high school youth, at low cost to the students and with great benefit to the supporting community.* At the same time, it will become apparent that the community college is much more than half of a university; that while it shares in the work of the liberal arts college, it has in addition other worthy functions not suitable to the liberal arts college; and that it has finally attained a series of functions, an integrity, a quality, and a status, which assure that it will be a permanent part of the American pattern of education.

The Pattern of Admissions

A wide variety of two-year collegiate institutions has grown up in America. Each college (whether technological institute, junior college, or community college; public or private college; college for men or for women, or for both sexes) describes its own objectives, and selects its

students in the light of those objectives. This discussion of admission policies applies most directly to the public coeducational community junior college. The suggestions set forth will be clearly inappropriate to some of the other kinds of two-year colleges.

The community junior college serves the nation by developing talents which were left undeveloped in earlier decades; it serves the student by opening to him a new door of educational opportunity; it serves the university by providing concrete evidence of the transferring student's capacity to succeed in college work. These several purposes indicate clearly that the community junior college should adopt what may be termed a "welcoming admission policy." That is, any high school graduate or other adult, who has the will to seek further education, and who seems likely to profit by instruction, should be allowed, even invited, to enroll in the community junior college.

Such an admission policy suggests several disturbing possibilities—lowered standards of achievement, increased burden of support of schools, certainty of failure for some students, increased rate of dropout. None of these eventualities really invalidates the suggested policy. Under proper conditions of guidance and teaching, standards can be improved under this policy. The problem of standards is discussed below, but it is appropriate to insist at this point that the admission policy by itself will not lower standards.

The fact that increased services bring increased costs is inescapable. Let us consider several facts. Universal education has been a major factor in America's economic and political pre-eminence. Problems of the future make necessary an even higher level of learning for the average citizen. Our present expenditures for all education, expressed as a percentage of the gross national product, are lower than those of several nations, including Russia. To the extent that these statements are true, it is true also that we can well afford the additional cost involved in a generous admission policy for the community junior colleges in order that we may realize the additional benefits to our economy.

Some persons shudder at the thought of student failure, not realizing that the complete exclusion from college of aspiring tens of thousands would cause infinitely greater frustration than the possible failure of thousands. Of those excluded by inflexible rules governing admission, none can succeed. Under the "welcoming admission policy" of the community college, certainly some will succeed; and even the failures will profit to some extent, as will society. The student who drops out will know that he was afforded the utmost opportunity. There is, of course, a further possibility that the student who is unsuited to one line of study may be helped to find another in which he can succeed.

Diversified Offering

The open-door admission policy, of course, demands an expansion of the kinds of education offered. If our concept of "college course" is limited to the liberal arts curriculum, plus its vocational derivatives in such areas as the engineering, pre-medical, pre-legal, or pre-professional curriculums, it is clearly inappropriate to admit all comers. By definition, the community junior college is committed to a broader educational program. It is much more than the first half of a university. It must do well all that the university does at the lower division level; it must also provide many valuable and necessary educational opportunities which are not appropriate to the university.

The community junior college recognizes that people differ. It recognizes that *bright* people differ—in their interests, in the profile of their high aptitudes, in their educational backgrounds, and in their occupational ambitions. The phrase "130 I.Q." is about as precisely descriptive as the phrase "40 lbs. of fruit." The latter might include one watermelon and one apple, or 100 choice peaches. The analogy holds equally for the varieties of factors which make up human intelligence.

In addition, the community junior college recognizes several consequences of human diversity: these varieties of abilities require varieties of educational opportunities. These abilities must be trained, if they are to be used effectively in a highly developed technology. Some worthwhile training programs will be less verbal and abstract, will stress practice and application. Some of these programs will require shorter periods of time than the traditional four college years—one semester, one year, two years, three years, depending on the nature of the learnings required.

Examples of such "semi-professional" curriculums are listed in *American Junior Colleges, 1960.*[1] A few of the more usual offerings are General Agriculture; Business: Secretarial; Dental Laboratory Technique; Electricity; Aviation Mechanics; Nursing; Recreational Leadership. Less usual curriculums include Dairy Technology, Horticulture, Ceramics, Accounting, Chemical Technology, Petroleum Technology, Industrial Chemistry, Refrigeration and Air Conditioning, Library Science, Police Science, Watchmaking. In every case, the community junior college combines its practical work with related theory and science, and with courses in general education designed to prepare students to live more intelligently as well as to work more effectively.

Guidance

The two qualities of the community junior college discussed above—an

[1] Edmund J. Gleazer, Jr. (ed.) *American Junior Colleges.* Fifth Edition, 1960. Washington: American Council on Education, 1960.

open-door admission policy, and a diversified educational program—entail a third essential characteristic—adequate provision for student guidance. Opportunity must be afforded for the student to learn about the offerings of the college. His parents and high school teachers will frequently be unable to advise him about job opportunities and training demands in fields with which they are themselves unfamiliar. If the student is to choose his college course wisely, he must have an opportunity to learn a good many comparative facts about himself. His vocational interests, his specialized aptitudes, his life values, and his educational background must all be interpreted as they predict his chances of success and satisfaction in a college course and in the work for which it prepares him.

The guidance service of the community junior college includes a vigorous program of interpretation of the college to high school students, to high school instructors, and to community patrons. It affords opportunity for all students to complete a basic battery of standardized examinations, including the interpretation of the results; individual examinations, are available to some students, if these seem to be appropriate. An extensive interview with a trained counselor at the time of first enrollment, with opportunity for later conferences as needed, seems to be a minimum essential of a community junior college guidance plan. Program adjustments, information about occupations, and counseling on health problems and personal problems as needed, will complete the basic organization. Without such service, much of the instructional effort of the college may well be wasted because students are wrongly enrolled.

Excellent Teaching

A fourth quality of the ideal community junior college is its emphasis on the quality of instruction. It is primarily a teaching institution, not one devoted to research and publication. Instructors are chosen for their ability to impart knowledge and to stimulate students to learn, rather than for their promise in fields of research.

At the same time, a large proportion of the student body of the community junior college requires better teaching. Some have able minds, but have not learned to use them effectively; if their present maturity meets demanding but sympathetic instruction, such students can be salvaged to achieve their full potentialities. Others may have only average ability, so that the motivation of excellent teaching will make the difference between failure and success. Still others have been away from study for years; patient and insightful instruction is required to maintain their courage until they have reestablished the habits of learning, and become self-reliant scholars. The community junior college will have its full share of highly able students, serious, ambitious, and determined. It will enroll also a considerable number of students who have not previously found

great satisfaction in the pursuit of knowledge. They are not "self-starters"; but if they receive encouragement from highly competent teachers, they can and will achieve remarkably well.

Substantial indirect evidence attests that excellent teaching exists in many community junior colleges. Jarvie[2] cites evidence from observation of teaching, judgments of experts, success of transfer students in later college work, and judgments of former students, to indicate that the quality of teaching in the junior college is high.

Standards of Accomplishment

The question of junior college standards has long plagued observers unacquainted with the nature and purposes of the institution. Because it admits many students who would have been excluded from a university, it seems to such critics that it must require lower standards of achievement. They err both in ignoring the diversity of offerings in the community junior college, and in their limited concept of high standards. Yet evidence abounds, accumulated over at least thirty years, that the achievement of community college graduates, measured by standards of university achievement, has been excellent.[3] As Bird summarizes the studies, "Junior-college transfers make records approximately the same as those made by transfers from four-year colleges and by native students, sometimes excelling slightly and sometimes being slightly excelled by the other groups. They usually show a drop in their grade average in the first term after transfer but then recover that loss."

In all fields, the community junior college which exhibits the four qualities described above should insist on highest standards of accomplishment. If the college offers to its unselected students guidance to help them choose the appropriate curriculum, and then provides exceptionally good instruction in its courses, it is obligated to demand of its students the highest quality of achievement. A good student who is disqualified because of failure in such a college must certainly feel that he has had every opportunity to succeed. He will realize either that he lacks the necessary qualities for success in his chosen course, or that he did not exert sufficient effort.

In this sense, the community junior college will require of the student in calculus or in economics achievement fully comparable to that of his peer in the university. The student enrolls in such courses only because he intends later to join other students in the university. In the same way,

[2] Chapter XI, "Making Teaching More Effective," by L. L. Jarvie, in National Society for the Study of Education. *The Public Junior College.* The Fifty-Fifth Yearbook, Part I. Chicago: University of Chicago Press, 1956.

[3] Chapter V, "Preparation for Advanced Study," by Grace V. Bird, in *The Public Junior College, op. cit.*

the student in nursing is required to learn well the chemistry appropriate for the nurse (but not the chemistry required of the chemical engineer). The student in petroleum technology will learn chemistry, and learn it thoroughly and well (but he will not be so concerned with analytical chemistry, biochemistry, or nuclear chemistry as the future professor of chemistry in the graduate school). The engineering student will achieve well in the course in machine shop practices appropriate for engineers. He will be able to solve more problems in mathematics, but fewer in machine setup, than the student of tool- and die-making. Each must be required to achieve excellently the requirements of his own curriculum.

Standards are not arranged in a hierarchy, with philosophy at the top, followed by literature, mathematics, physics, chemistry, zoology, botany, physiology, history and the rest, and winding up with nursing, secretarial science, building construction, and architectural drafting. Rather, standards must be defined as excellence of accomplishment of the objectives of study. The physician is not accused of substandard work if his English is inferior to that of the novelist; nor should the secretary be scorned because her knowledge of accounting is less profound than that of the certified accountant. Each must know thoroughly that which affects his own area of competence. In this sense, community junior colleges can uphold high standards of achievement.

During the century since its first mention in the writings of Folwell and Tappan, the community junior college has defined its role and clarified its goals and its potentialities. It has achieved a maturity and an integrity of its own; it has demonstrated its right to a valued place in the American scheme of education. It deserves to be evaluated in the light of its demonstrated achievement of its own multiple objectives.

TEST BOOM

In an increasingly test-conscious nation, the most recently established testing program reports rapid expansion. The American College Testing Program, with headquarters at Iowa City, reports that it has been joined by 368 colleges during its first year of operations and has administered its college placement tests to 125,000 students. Since the scores are not only sent to the participating colleges but also to other colleges in which the student indicates an interest, A. C. T. officials say that about 1,000 institutions received the test results to date. More than 6,000 high schools also received reports of their students' scores.

Nineteen states in the South, Middle West and the Far West as well as Alaska are taking part in the new program. Maryland uses the A. C. T. for its state scholarship program.

—*The New York Times*, August 7, 1960.

EFFECT OF KNOWLEDGE OF PARTS OF SPEECH ON COLLEGE ENTRANCE EXAMINATIONS IN CALIFORNIA

BY PATRICK J. GROFF*

Most teachers by the time they have finished their college methods courses in English or language arts have come to realize that there is little positive relationship between the knowledge of the parts of speech and achievement in written composition. Greene has made the lack of such a relationship abundantly clear in his review of this matter in the *Encyclopedia of Educational Research* (2). He states that, "The results from tests in grammar, composition and literary interpretation led to the conclusion that there was little or no relationship between grammar and composition and grammar and literary interpretation. Further evidence supplementing the early studies indicated that training in formal grammar did not transfer to any significant extent to writing or to recognizing correct English. In general the experimental evidence revealed a discouraging lack of relationship between grammatical knowledge and the better utilization of expressional skills. . . . No more relation exists between the knowledge of grammar and the application of the knowledge in a functional language situation than exists between any two totally different and unrelated school subjects." Green quoted the Curriculum Commission of the National Council of Teachers of English who concluded that, "every scientific attempt to prove that knowledge of grammar is useful has failed. . . ." Greene also concluded that there was only insignificant evidence of any positive relationship between diagramming and the ability to create effective sentences. He found the disciplinary value

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of grammar was "negligible," and that the experimental evidence did not support the fact that the knowledge of English grammar contributed to achievement in foreign language, or to reading skills in English. Many teachers who have taught parts of speech would agree with his belief that, "Grammar is difficult if not impossible to teach to the point of practical application." Searles and Carlsen writing in the 1960 *Encyclopedia of Educational Research* substantiated Greene's earlier comments by their statement, "Summaries of research in the teaching of language have consistently concluded that there is no shred of evidence to substantiate the continued emphasis on grammar prevalent in most classrooms." (p. 462)

Why, then, is grammar, or more exactly, the knowledge of the parts of speech taught? Primarily, it seems, because parts of speech are in the textbooks. At the elementary school level the California state-adopted textbook (1) devotes approximately nine per cent of its volume to parts of speech at the fourth grade, thirteen per cent at the fifth, and thirty-three per cent at the sixth. A study of three well-known language textbooks at the junior high school and high school level (3, 4, 6) reveals they devote approximately these percentages of their volumes to parts of speech at the following grades: *VII*-35, 30, 25; *VIII*-40, 32, 27; *IX*-36, 26, 26; *X*-28, 15, 20; *XI*-26, 9, 23; *XII*-23, 18, 22. If this sampling is representative, it indicates that textbooks suggest that the teacher give about twenty-five per cent of the composition curriculum to the parts of speech. This implication contradicts the experimental research on the subject, of course.

Secondly, public-school teachers sometimes fear that a standardized test of language requiring knowledge of the parts of speech will be administered to their students, with the assumption that their success as teachers will be judged to some degree on the achievement of their students on such a test. These apprehensions are justified to some extent. Although most of the newer standardized tests, such as the *Science Research Associates Achievement Series* or the *Sequential Tests of Educational Progress* do not require such knowledge, others do. A reasonable solution here would seem to be to avoid administering standardized tests that require a knowledge of the parts of speech.

Lastly, teachers often feel that the knowledge of the parts of speech will be required as part of college entrance examinations, and therefore, the teaching of them is warranted for this reason. To determine if this opinion of the importance of the knowledge of the parts of speech upon achievement in college entrance examinations was valid, the writer asked the Directors of Admission at the colleges and universities in California to indicate which entrance examinations they administered. The part of the over-all score of each school's English entrance examination that is based on a knowledge of the parts of speech, and the ability to parse sen-

tences, including diagramming could, therefore, be calculated.

An examination of the tests reported to be administered by the responding colleges and universities revealed that, with only two exceptions, no part of the possible scores of the English entrance examinations is based on a knowledge of the parts of speech or the ability to parse sentences, including diagramming. (The two exceptions: the *Cooperative English Test* has four questions out of seventy-five on the parts of speech; the *Sequential Test of Educational Progress* has two out of sixty.) In other words, the knowledge of the parts of speech will affect in practically no degree the score a student will make on his college English entrance examination in a California college or university. These findings confirm earlier ones by Smith and McCullough (5).

From this study it seems fair to conclude, as did the earlier studies, that the teaching of the parts of speech in public schools is unnecessary and unwarranted. The earlier research evidence told the teacher he can discontinue teaching the parts of speech with no adverse effect on the quality of the written composition of his students. The survey described here indicates that the teacher need have no fear that ceasing to teach the parts of speech will adversely affect his students' possibilities in successfully passing their college English entrance examinations in California colleges and universities. The present study also suggests that the teaching of the irrelevant parts of speech to prepare students to achieve well on certain standardized tests in elementary and secondary school obviously can be avoided easily by simply not using such tests to evaluate achievement in English since such evaluative evidence is inconsequential and therefore inapplicable.

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SPECIALIZED OFFERINGS FOR ABLER LEARNERS IN HIGH SCHOOL

BY RUSSELL N. CASSELL*

This article is concerned with describing a systematically organized program of activities and experiences which have been designed specifically for "abler-learner" students on the high school level, and which are intended as a supplement to the usual program of enriched traditional school offerings usually provided for such students (14, and 16).

For purposes of this paper, abler-learner students are presumed to include the upper 15 per cent of the student population in the typical school setting, approximately one out of every six individuals, or the great masses of those persons who will be expected to assume positions of leadership in the solving of tomorrow's problems (1, 3, 4, and 7).

Activities and experiences described in this program are not restricted to the present school curriculum, but they may include co-curricular, after school, evening, and week-end functions under immediate school monitorship and supervision, and extracurricular, after school, evening, week-end, and summer activities in connection with school-community joint sponsorship activities and experiences.

None of the activities or experiences described are presumed to be unique or original in terms of present professional knowledge, but they are considered new in the sense that they constitute an independent and systematically organized program for use among select groups of specially talented students in a typical high school setting. A general temper of many of the considerations is that previously they were considered appropriate only for college and graduate level of instruction, and in other instances for military training, or for research analysis purposes. Six basic and independent areas are included:

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- student self evaluation and analysis,
- development of critical thinking ability,
- development of decision making and problem solving ability,
- development of creative thinking ability,
- development of leadership ability,
- interaction with outstanding and eminent leaders in varied areas.

Student Self Evaluation and Analysis

The Greek philosopher, Socrates, maintained that the most important thing to an individual is to "know thyself." The ultimate objective of psychoanalysis is a better understanding and acceptance of one's self. Personality change in an individual is largely dependent upon the presence of an active and effective "ego ideal," or some basic plan accepted by the individual that gives direction and motivation for such change. Similarly, expedient realization of long range life goals which, for the abler learner, usually involve extensive and complex training and preparation is dependent upon the generation and presence of feasible plans which reconcile the qualifications of the individual and are compatible with such goals.

Objective Test Information

Fortune telling and tea-leave-reading in connection with the educational and vocational guidance of youth are a thing of the past, and there is no acceptable substitute for objective data in the understanding of one's self. Such tests might include the following areas of concern with suggested tests as indicated: (1) intellectual capability in multi-aptitude areas (Differential Aptitude Tests), (2) educational development (Iowa Tests of Educational Development), (3) occupational interests (Kuder Preference Record), (4) social insight (Test of Social Insight), (5) personality (The Group Personality Projective Test), (6) values (Allport-Vernon Scale of Values), and (7) leadership (The Leadership Ability Test, and the Leadership Q-Sort Test).

Mental Health, Happiness, and Ego Strength

The usual curriculum materials found in college courses in introductory psychology, personal adjustment, mental hygiene, and some of what is in abnormal psychology would be considered appropriate for this area. It should include information pertinent to developmental problems and expectations, aspirations, emotional involvement, goal-setting and learning, frustration, ego-development, dynamics of personal and social adjustment, and other areas as the student needs indicate(5).

Development of Critical Thinking Ability

Today, as never before in the history of civilization, we live in a continuous state of "cold war" wherein two basic ideologies (communism

and democracy) are the inciting forces, and where the rulers of communistic Russia and China seek to impose their way of life on the total population of the world; while the people in the democracies seek to establish and maintain conditions where there is free choice of the respective peoples involved.

The abler learners, most of whom will be the leaders of tomorrow, must become intimately familiar with the propaganda devices of our communistic adversaries such as name calling, transfer, glittering generalities, testimonials, plain folk, card stacking, band wagon, composite appeal. They must be taught the value of such counter-propaganda devices as being able to say "no," avoiding hasty decisions, examining prestige value of represented experts, and suspecting persons who prefer not to answer questions in amicable discussion groups (19).

Attitude

The attitude and morale of a person or group of individuals deal primarily with their feelings or affective qualities and not with their thinking ability or activity. Just as an individual has a personality, so a group of people has a "syntallics." The abler-learner students must have repeated opportunity to examine the relationship between attitudes, emotions, and logic; to investigate the nature of attitudes; and to learn the characteristics of high morale. Finally, they must become intimately familiar with effective means for improving morale and attitudes (4 and 7).

Frustration

There is a vital relationship between stress and frustration and between one's level of aspiration and depth of frustration. The abler learner should understand the symptoms of frustration (aggression, regression, and fixation), and should have adequate command of effective means for dealing with frustration, such as a problem-solving attitude and means for correcting situations.

Motivational Research

The whole area of "hidden persuasion" represents a major "breakthrough" in our understanding of motivation, and our abler learner should be kept abreast of the findings as they unfurl in the newly generated research literature. Such considerations as need vs. incentive, effectiveness of one's adaptation, depth probing in merchandising, consumer motivation, self image and product loyalty, and motivational analysis, should be included (15).

Development of Decision-Making and Problem-Solving Ability

Under this unit of work, transition is made from the subjective world of consideration to the objective one with the abler learner adopting a method of effective causal thinking. Constructive criticism becomes the

rule of the day with continuous activity involved in the development and testing of hypotheses in relation to real life problems.

There should be ample opportunity for youth to make decisions under conditions of stress and uncertainty, as well as the opportunity for participating in decision-making games. This should include both individual and group problem-solving activities paced to the appropriate level of learning of the individuals involved both in terms of their level of capability and experiences (17).

Development of Creative Thinking Ability

Explorations in creative thinking must be incorporated as a portion of the regular school activities if we are to develop the ability for such activity as adults. Again, this may include the development of sensitivity to a given problem, followed with attempted efforts at new and unusual ways of solving the problem. In addition such compounding of thinking as is involved in "brain storming" and other similar techniques should be utilized.

It should be made quite clear to the student attempting creative pursuit that such production does not emerge from a vacuum, but rather from situations in which the learner is thoroughly intimate with historical contributions in the area. Often, in a sense, what is considered creative amounts to be a composite of progressive cumulative contributions with unique direction or modification (18).

Development of Leadership Ability

Some personal philosophy on the part of the individual as to what constitutes effective leadership is essential. This should include such factors as (1) personal integrity, (2) consideration for others, (3) mental health and personal adjustment, (4) technical information, (5) decision making, and (6) communicative skills (2, 8, 9, 10, and 11).

Individuals should be aware of the various social climates engendered by the decision pattern structure which a leader uses in influencing other persons or groups of individuals and of the characteristics of these patterns both in terms of leader action and the expected responses of the group: (1) laissez faire—individual group member centered, (2) democratic cooperative—parliamentary procedure centered, (3) autocratic submissive—expert, resource person, or committee centered, and (4) autocratic aggressive—leader centered (12 and 13).

Three roles have been described in relation to leadership with respect to the group membership, and individuals should become familiar with the characteristics of such roles and with the psychological dynamics pertinent to them: (1) support of group objectives, (2) facilitate group cohesion, and (3) facilitate individual personal status (6).

Group dynamics represent general personality or "syntallics" of the

group, and it entails an analysis of social climate with emphasis on isolating and describing impinging dynamics. The following phenomena are minimum essentials in this area: (1) activity analyses sociograms, (2) peer-status and peer-affiliate sociograms, (3) role playing, (4) social opinion and perception, self-concept evaluation and comparisons, and anthropological findings.

Interaction With Outstanding and Eminent Leaders in Varied Areas

Ample opportunity should be provided for the abler learners to interact with outstanding leaders from many fields. The leader should first orient students to his particular area of specialization, and then permit a discussion in which opportunity is provided for every member to interact both with themselves and with the leader (3).

Important in this interaction is the opportunity to visit the area of activity of the selected leader with a view toward developing sensitivity to the dynamics present in such surroundings. In learning situations consideration should be given to an assessment of the differences between mediocre and outstanding contributions, with a view toward generating values and ideals compatible with the outstanding contributions. Such classic lectures as *Acres of Diamonds* by Cromwell, and the notion that opportunity is usually dressed in old clothing that is why it is often not recognized should be considered as appropriate guidance for expected outcomes in this area.

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MORE SCHOOL YEARS

Education has become recognized as a matter not only of national welfare but of individual economic necessity.

Last week the United States Office of Education reflected this fact of life in a report, which noted that an increasing number of Americans were moving up the educational ladder.

The report, which was issued at an international educational conference in Geneva, dealt with progress in American education in the 1959-60 school year.

Government leaders and educators have drummed home the message that this nation's future will depend upon the education and technical training of its citizens. But an even stronger personal motivating factor as far as many individuals are concerned is the realization that in an increasingly complex society the better jobs generally go to those with the better education.

The Office of Education report underscores the steady rise in the nation's educational attainment. Before World War II, the average American 25 years of age or older, had completed eight years and four months of schooling. By 1950, he had completed nine years and three months. Last year the average was eleven years of schooling.

While the educational level has been going up, the student drop-out rate has been declining. Of those pupils who started fifth grade in 1950, 88.5 per cent entered high school and 58.4 per cent were graduated in 1958.

Compared with the statistics twenty-six years ago, this record is impressive. Of those who entered fifth grade in 1924, only 61.2 per cent went on to high school and only 30.2 per cent were graduated.

—*The New York Times*, July 24, 1960.

DEVELOPMENTS IN SCHOOL RECREATION

BY JOHN J. KLUMB*

There has long been a need for a policy statement by the California State Department of Education regarding the public school's role in recreation. Such a statement was officially adopted and published in February, 1960.

The Roles of Public Education in Recreation is a framework for recreation services provided by the California public school districts and provides guiding principles for school districts. Some of these are:

School Role in Recreation

1. Maximum use of school facilities by the community, when they are not being used for instructional purposes, is a rule of thumb to which school officials should be dedicated. Throughout the State our public schools represent a large financial investment in both indoor and outdoor facilities. These classrooms, shops, athletic fields, swimming pools, and gymnasiums are needed to serve the leisure demands of the public that built them and should be in use 365 days a year, 12 to 15 hours per day. The school plant, in many communities, is the only adequate place where community recreation can take place.
2. School districts are permitted and encouraged to provide recreation services under California law and, as such, are provided with a tax source to insure a method of financing. This right and responsibility may be met as a separate governing jurisdiction or in partnership with other jurisdictions.
3. Schools should achieve close articulation between instruction and

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recreation. Skills taught during the regular school day are incomplete unless provision is made for them to be put into practice during out-of-class hours. Therefore, school recreation is an essential part of the educational program and, as such, it is of great importance that it be tied closely to the school curriculum.

4. Schools should cooperate with other community agencies in promoting and conducting recreational activities by:
   a. Keeping the community informed regarding the value of recreation.
   b. Making their facilities and personnel available for conducting recreation.
   c. Providing leadership in development of needed recreation in the community. In so doing, the schools may be the focal point for total recreation in a community, or may work cooperatively as a full-fledged partner with other community agencies.

The policy statement, *The Roles of Public Education in Recreation,* can receive great impetus and be implemented in the field by:

1. School superintendents making it an agenda item for study and discussion by board members.
2. School principals including it as an action item for discussion at faculty meetings.

Reprints of the policy statement are available for distribution to school board members and school faculty by request through the Bureau of Health Education, Physical Education and Recreation, California State Department of Education, Sacramento, California.

Community Service Tax

Education Code, Section 20801, enacted in 1951, authorizes elementary school, high school, and junior college school districts to levy beyond the educational tax limit, a tax of five cents per $100 of assessed valuation to support community recreation programs. However, over the years, this had worked a hardship on unified school districts because they embraced more than one educational level, but were restricted to the same tax as a single educational district. Last year the California State Legislature revised this *Education Code* section so that unified school districts may now levy beyond the educational tax limit a tax for community recreation which does not exceed ten cents per $100 of assessed valuation. This adjustment has allowed unified districts a more equal tax base, and the result has been the provision of additional school recreation services by most of these districts.

Summer Schools and Recreation

The unprecedented increase in summer school programs throughout the State has necessitated no small adjustment in many community recreation programs.

Time overlap and duplication of program offerings in music, arts and crafts, natural science, and physical education, as well as some conflict on use of facilities, has made joint planning and cooperation between many agencies a necessity for community harmony and maximum benefit to the children from the several programs.

Some misunderstanding has resulted from the legal provisions in the California State *Education Code* regarding physical education offerings during the summer session. For apportionment purposes, no classes in *recreational* physical education shall be approved. Rather, such classes must insure appropriate *instruction* in physical education activities during the period. Care must be taken not to integrate the summer school instruction with the community or school recreation program.

The Student Activity Program

Student participation in school experiences, variously referred to as extracurricular extraclass, out-of-class, or co-curricular, has become so extensive that a number of school districts have established the position of Director of Student Activities in an effort to centralize administration of these many interests. Other districts have expressed the need for study of the expanded student activity program and the development of some guiding principles for desirable practices and administrative procedures.

The direct connection and interrelationship of the curricular with the extracurricular is evidenced by the number of present curricular offerings that once were considered out-of-class activities. Also to be noted is that many or most of the extracurricular activities are a direct result of needs and demands for additional experiences stemming from the parent curricular subject. It follows then that these extracurricular activities make a valuable contribution to: (a) student education and development, (b) curriculum improvement, (c) effective school administration, and (d) community relations and support. In fact, these activities should be considered as an integral part of the total instructional program rather than as extra or as an interdependent program.

In light of the potential present for motivation, stimulation, and enrichment of the instructional program through the extracurricular programs it is necessary that a concentrated effort be initiated to establish a Statewide continuity of pattern and to develop sound, workable principles.

The Bureau of Health Education, Physical Education and Recreation of the California State Department of Education will lend leadership to such an effort in the near future.

AN EXPERIMENT IN INTEGRATING BIOLOGY AND SPANISH

BY EVERETT O'ROURKE
RUTH SHERRED
HELEN SMELTZER

An experiment integrating Spanish and biology was conducted in the three Tulare County High Schools (Exeter, Strathmore, Redwood-Visalia) during the 1959-1960 school year. One biology teacher and one teacher of Spanish constituted a teaching team in each school. The results indicate that the ninety students in the project were in almost all cases highly motivated to learn, retained as much or more biology knowledge than students in regular classes, and advanced a greater degree in fluency and comprehension of Spanish than their schoolmates in other classes.

The study was initiated in June of 1959 when the six teachers met with a representative of the Tulare County Schools Department and a repreentative of the Bureau of Secondary Education of the California State Department of Education to decide the purposes and processes of the study and to come to some definite conclusions about content, method, and procedures.[1]

Since the biology teachers are not Spanish linguists nor the language teachers biology majors nor minors it was decided that whenever teachers in the two fields found that a coordinated approach to their subjects was possible materials were to be selected or developed and learning inte-

[1] Personnel engaged in the study: Director—Mrs. Helen Smeltzer, Director of Audio-Visual Services, Tulare County Schools.

Exeter Union High School—Miss Ruth Sherred, Spanish; Eugene Shields, biology.

Redwood High School, Visalia—Anthony Cabrera, Spanish; Lewis Walker, biology.

Strathmore Union High School—Mrs Blanche Premo, Spanish; Jack Brunner, biology.

Consultant—Everett V. O'Rourke, Consultant in Secondary Education, California State Department of Education.

grated. That is, the biology course was not to be taught in Spanish nor the Spanish course to be concerned only with biological science content.

The basic purposes and learning procedures were to:

1. Make students aware that the Spanish language is a means of communicating;
2. Draw upon biology as content about which learnings are acquired and ideas expressed through the Spanish language;
3. Facilitate student use of Spanish through the audio-lingual approach to language instruction;
4. Give students opportunity to gain greater knowledge and appreciation of both subjects;
5. Develop and use teaching materials and techniques especially adapted to the plan of instruction;
6. Learn through a coordinated program that science and foreign language may be of equal importance to the student of today and the adult of tomorrow.

During the June meeting and another in August of 1959, coordinate with the basic purposes and learning procedures, the group defined their objectives in both subjects and developed selected units most suitable for an integrated approach. In addition they planned teaching procedures; previewed, evaluated, and selected appropriate audio-visual materials for teaching and learning; made tapes and devised other materials when none were available commercially in suitable form for the specific needs of this program; and planned evaluative techniques.

Three biology units were selected for the study: conservation of natural resources, insects, and certain areas in the study of human biology.

Films and filmstrips were also selected that would present the science concepts in the three biology units. Biology teachers outlined the concepts to be stressed for each unit and for each film or filmstrip, and set up a basic scientific vocabulary.

Many of the selected films had English language narrations. The Spanish teachers prepared Spanish language narrations for these and taped the narrations to synchronize with the pictorial presentations. In the case of certain Spanish language films that were too idiomatic or had a vocabulary too complex for beginning Spanish students it was necessary, also, to synchronize a simplified taped narration. Filmstrips were also adapted by blocking out the English captions and substituting taped Spanish narration. On explanatory tapes material for each frame was recorded and repeated for emphasis. Pattern drills and evaluation tapes were made also for filmstrips.

The Tulare County School Department provided each Spanish teacher with written scripts of all taped materials, as well as with a complete set

of tapes to be used in the classrooms. The county audio-visual department, also, sought out appropriate materials, provided equipment and tapes, gave technical assistance in preparing tapes, and duplicated all materials, both written scripts and recorded items. It also provided the working facilities and helped in making charts and the like. Teachers set up a time schedule for use of materials so there would be no overlapping of requests. All materials were purchased or owned by and housed in the county audio-visual department. This department submitted a Title III, Section 303, NDEA project which provided additional materials and equipment for classroom use.

Procedural Meetings

In addition to the meetings held in June and August, during the course of the school year the teachers met with the consultants one Saturday in November, three days during the Christmas recess and one day in March. They discussed their experiences, evaluated progress, and revised plans in the light of difficulties encountered and successes accomplished.

Classroom Visitation

During the school year Mrs. Helen Smeltzer, Director of the Project, visited classes in session and consulted with teachers on procedures and problems. Classes were also visited by representatives of the California State Department of Education, the U. S. Office of Education, parents, teachers and others.

Progress Reports

The teachers kept daily logs to record classroom activities and reactions of both teachers and students. These are included in progress reports made by Mrs. Smeltzer after the summer orientation session, the Christmas recess session, and at the close of the year's work. A daily log for the four-week orientation and preparation session was kept, also.

Student Groups and Classroom Procedures

One group of students in each of the three high schools participated in the study during 1959-1960. They were enrolled in both Spanish and biology in most instances.

In Redwood High, largest of the three schools, students were sophomores enrolled in Spanish II and biology. Their Spanish I class had been taught by the traditional grammar-translation method.

In Strathmore High, the school of smallest enrollment, scheduling difficulties resulted in a Spanish II class of 29 sophomores and juniors, only five of whom were taking biology. This class had also studied Spanish I by the grammar-translation method.

At Exeter High the class was Spanish I composed of incoming freshmen, none of whom had studied Spanish previously. In this school biology

is taught in the tenth grade, social studies in the ninth. This order was reversed for the research class which was enrolled in biology as freshmen and which will take social studies and Spanish II in the tenth grade.

Teaching programs were arranged so that the Spanish and biology periods were consecutive. In Exeter and Strathmore each teacher had a preparation period during the other's assignment to the research class. No preparation period was provided for teachers at Redwood.

In all three schools films and filmstrips with Spanish narration were shown to both the Spanish classes and biology classes. In the biology classes the science concepts were discussed in English. In the Spanish classes emphasis was placed on communication rather than on science concepts, and tapes of speech patterns were run to provide practice in listening, in imitating, and in reconstructing phrases.

Speech pattern drills were limited to about ten minutes, since teachers discovered that the learning value in such drills diminished after this time. Also, there was increasing assurance that constant repetition of the spoken language through narration and drills develops speech habits that tend to remain Spanish in pronunciation, intonation and phrasing even after reading and the written language are introduced.

Even though the vocabulary of biology is in some sense fairly specialized, speaking about science concepts still demands the use of common words, adjectives and sentence structure found in ordinary conversation in order to express ideas. Inclusion of specialized nouns seemed to help rather than hamper Spanish conversation.

More learning, greater student interest, and increased participation in conversation was evidenced following filmed materials which were interesting in themselves and nontechnical in approach than when more specialized materials were used. For instance, classes responded to BEAVER VALLEY and similar films more spontaneously than they did to the film CIRCULATION and ELIMINATION. At the close of the year students chose for review the more generalized films on conservation in preference to films on insects.

None of the three schools had language laboratories during 1959-1960. However, all the schools were furnished with equipment from the Tulare County Schools Audio-Visual Department. This equipment consisted of a motion picture projector, filmstrip projector, opaque projector, tape recorder, screen, and tapes. These remained in the classrooms for the entire school year. Also, classrooms had light control so that visuals could be projected.

Rooms had ample bulletin board space for the display of charts, posters, and other visuals. In addition, rooms contained movable tables and chairs rather than fixed furniture.

There were abundant reference materials in both the Spanish and the

biology classrooms. Books, pamphlets, magazine articles, study prints, and preserved specimens were available for study.

Opaque projectors were used in all three schools to enlarge pictures and to aid in the identification of plant and animal life.

Teachers of Spanish found that visual symbols as presented in motion pictures, filmstrips, charts, and other pictorials, when coupled with oral symbols through Spanish narration, stimulate communication, add interest, and supply clues for vocabulary mastery.

Even though they lack the dramatic appeal of motion pictures, filmstrips proved to be a most valuable teaching device when used with accompanying tape because the teacher controls the pace of the lesson. One caution to be observed in using this medium for foreign language teaching—be sure the English caption is blocked out or students will translate; also, they tend to read the words rather than give full attention to the oral presentation.

Classes often divided into small groups. One group might work out a summary of the film and present it orally to the rest of the class. Sometimes two students prepared a short dialogue, presenting it live or on tape for class listening.

Questions were asked in Spanish by the teacher or by students and answered by other students. For example, "¿Donde vive el castor?" "El castor vive en un valle." "¿Como construye el castor su casa?" "El castor construye su casa con lodo, con ramas, y con mucha paciencia."

Another technique was building sentences around a word given to the group by the teacher or a student. For example, the teacher might give the word, *abeja*. One student might say, "La abeja es un insecto." Another, "La abeja vive en una colemna." Another, "La abeja es un insecto social."

It was decided that it is advisable to postpone until the middle of the first semester the creative oral activity of building sentences and expressing concepts around a word. Also, panel discussions were discovered to be a good learning technique only after a basic vocabulary had been mastered.

In all of this oral work, the only time words were used in isolation was during the activity of building sentences around a single word. In all oral activities students were permitted to speak only in complete sentences. This is a basic principle which these teachers observed in the audio-lingual approach to language teaching and learning.

The teachers worked under the premise that teaching of vocabulary lists should be avoided at all costs and that new words should be introduced orally and in context, never in isolation, and never with English translation. Objects, pictures, gestures and cognates helped to clarify meaning.

The point at which the three Spanish classes began reading and writing varied. Teachers agreed that introducing reading and writing too soon disturbs speech habits and tends to change them into English pronunciations. Not all students are ready for reading the language at the same time. This parallels the variation in "reading readiness" found in primary grades.

The activity of collecting pictures was carried on in all three schools, the two second-year groups making more progress in compiling an informative booklet than the first-year group. They were able to write more and had access to dictionaries, whereas the first-year group had not reached this level and was denied the use of dictionaries.

Even after written language was introduced, teachers felt that class activity should be predominantly oral. Translation was never required—in fact, translation was prohibited.

Although there was a common agreement among the teachers of Spanish concerning procedures and processes of teaching each went about the job in a slightly different manner.

In Exeter and Strathmore the Spanish teachers gave a brief introduction in English to acquaint students with the project and to explain how the study would proceed. From this point on the Spanish classes in these two schools were conducted almost entirely in the Spanish language. Meanings were made clear through gesture, through presenting objects and pictures and through repetition, as well as by using cognates and different expressed relationships. English was allowed only during such brief intervals as were necessary for student evaluation of the project.

In Redwood, English was used occasionally to clarify abstractions and to explain certain biology concepts to students in the Spanish class.

Redwood and Strathmore eliminated the human biology unit from their Spanish study because the teachers felt that the students should have opportunities to learn more of the material in the regular Spanish texts.

Exeter decided to add materials on reptiles and limit consideration of human biology to films on circulation and elimination and to vocabulary of human structure.

In Exeter a film was shown first, without the prior teaching of vocabulary. Next, the speech pattern tapes were used; then posters and charts were used to teach vocabulary and clarify meanings. Finally the film was reshown. Reading and writing activities, when introduced, at Exeter, were teacher and class prepared and presented only those sentences and ideas that students had already mastered orally. The class began reading simple materials in the middle of November. Exeter students had expressed the wish earlier in the year to build their own reading source unit and to have it put into booklet form. The first unit was prepared by the teacher and based upon speech patterns with which students were fa-

miliar. This was put into story form. Students illustrated the pages with original drawings, and mimeographed copies were distributed to the class. In order to make sure that each word would be encountered a sufficient number of times to guarantee familiarity on the part of the students, the teacher prepared a frequency-of-occurrence vocabulary list and checked the story with this list.

The second reading unit at Exeter was done in class. Students dictated sentences to the teacher, who wrote them on the board. The teacher read each sentence aloud; students repeated it and then copied from the board, again saying each word aloud as they copied. The pronounce-copy technique was planned to discourage students from spelling words letter by letter, and to encourage them to write sound by sound, since Spanish is a phonetic language as opposed to English with its many consonants, differences in vowel sounds, and other phonetic inconsistencies.

Aside from copying, very little writing was done by the students at Exeter. At the very last of the year they asked to be allowed to write simple sentences to accompany the pictures in their scrapbooks. This was permitted, but to a very limited extent since the teacher felt that creative writing should be postponed until the second year.

In Redwood extensive class work took place before the showing of a film in order that students could view the film with greater understanding. Charts and posters were used to teach vocabulary. A tape of the film sound track was run, then a tape of speech patterns. The film was used to summarize or climax the learning. The students at Redwood read and wrote from the beginning of the year, perhaps not so much as they would have had they been continuing under the grammar-translation approach, but since they had already been practicing these two techniques in Spanish I, it was believed they should continue. They wrote summaries of films and some original compositions. They began collecting pictures pertaining to the unit on conservation early in the year, pasted them into a book and wrote explanations in Spanish.

In Strathmore charts, posters, and other visuals were used first to teach vocabulary. Next the film was shown and following this, tapes of speech patterns were run. Students who had already been introduced to reading and writing in Spanish I, did not begin reading in the correlated program until the middle of January, which is the beginning of the second semester. The teacher stated in her log, "At first we used simplified scripts and then unsimplified scripts of the master tapes. Sometimes they (the students) paired off to read to each other; sometimes individuals would read before the class. . . . Later we had written work along with the reading. Sometimes it would be in the form of dictation after which papers were exchanged and corrected in class. Other times an original composition was done in class, read to the class perhaps, and then turned

in to be corrected by the teacher."

Homework

In the audio-lingual approach to language learning, homework is of a type different from that which is usually carried on in the traditionally taught language class.

Students were assigned to listen to Spanish programs on radio and TV. This homework assignment met with varying degrees of success. Some students found it easy, others met with parental objections, and at least one student had no radio or TV set.

The second-year students also took home records and tapes, and had some written assignments. The first-year students were not encouraged to practice speaking at home because their speech habits were not strongly enough fixed to insure correct speaking without teacher supervision.

It was decided that it would be well if students had access for individual study to tapes used in classroom work. At Redwood, several students owned tape recorders and were permitted to take copies of tapes home. They even phoned each other and played tapes over the phone.

Evaluation of Student Progress

In evaluating achievement of Spanish students, various techniques were used. The most important evaluation was the daily performance of the students in Spanish classes. The one most frequently employed was the taping of true-false and multiple-choice statements. In preparing these the teacher taped each statement twice, left a pause space, and then went on to the next statement. For example, a true-false test could contain this statement: "La abeja es un insecto social." And again, "Le abeja es un insecto social." Then a pause would occur during which students indicated "si" or "no" on paper.

Taping tests in this manner has a two-fold advantage. It saves the teacher's voice and it prevents students from interrupting to ask for a third or fourth reading of a statement. Should a student be absent during a test, the taped examination could easily be given on an individual make-up basis.

Other methods of evaluating the three classes were more subjective. Student performance was judged according to the number of oral contributions made during discussion periods, the quality of pronunciation, accent, intonation, phrasing, and fluency. Often the discussions, questions and answers, and dialogues were taped by the students. This made it possible for the teachers to listen and to evaluate the tapes later. These student-prepared tapes were often played back to the class so that students could evaluate themselves.

At the end of the first semester and again at the end of the year students in all three classes evaluated the project. These evaluations were

written in English and gave the teachers suggestions and guidelines regarding the speed with which the classes were learning, difficulties encountered in student comprehension and expression, and whether or not the students themselves believed the learning in Spanish and biology was being strengthened by the dual presentation of these subjects.

Another evidence of class activity that could be considered evaluation of achievement was an evening program for parents which demonstrated typical classroom learning activities. Similar presentations were also made for visiting educators.

Evaluation of the Study

Only the Exeter group carried the project through to the end of the school year. Teacher preparation time is vital to the success of such a program. The Spanish teachers were continually plagued by the time element throughout the year.

There was evidence of acceptable change in student, teacher, and parent attitudes toward teaching and learning experiences throughout this correlated approach to the study of Spanish and biology.

Teachers realized that each member of such a team supplements the work of the other, and objectives in each course are met through combined effort and understanding. To carry on the program each had clearly in mind what he was going to teach, how he was going to teach, and why he was going to teach.

Eighteen of Strathmore's Spanish II students have elected Spanish III for next year—the largest section in third year Spanish ever enrolled in that high school. This contrasts with the current Spanish III enrollment of six students.

At Exeter High the research group of students and their parents requested that a correlated approach be used in Spanish II. For the second year language study, therefore, Spanish will be correlated with units in social studies.

The research study at Exeter stimulated interest of other students in the school and of adults in the community. As a result Exeter will start another freshman Spanish I group in a Spanish-biology program because of parent and administrator support of this approach.

Even though Redwood High will not continue its formal participation in a correlated program, the teacher plans to use materials prepared during this research study in his Spanish class next year. As a result of his losing struggle to prepare materials, the administration in this high school has provided language teachers with preparation periods next year.

Close cooperation of the Spanish and biology teacher team in each school was also reflected in the success of the program. Both Spanish and biology teachers reported evidence of reinforcement of learning through the use of Spanish language materials in both classes.

Although more time was spent in biology classes on the unit in conservation than in other years, these classes covered as much or more total science material than did nonparticipating biology groups. Also, though there are no valid comparative data, students in the pilot classes tended to score higher in biology tests than did other biology students not involved in the project, even though the same teachers taught both research and nonresearch groups.

The consensus among the three Spanish teachers is that it is more difficult to change a group of students to the audio-lingual approach to instruction after they have already studied under the grammar-translation method than it is to start a group with the audio-lingual method. Both teachers who had second-year groups in Spanish felt that their students had difficulty in making the transfer. This showed up in their reluctance to speak, their wish for the security of a text, their pronunciation, mastery of language patterns, and groping for spontaneous expression of ideas in the foreign language. There seemed to be a habit of thinking in English and mental translation which slowed down oral delivery.

The Spanish teachers also feel that correlation of Spanish with another subject in the curriculum stimulates interest in both subjects, assures greater student motivation, and encourages free expression in the foreign language.

In assessing the year's work, all teachers expressed the feeling that additional activities could have been carried out without the expenditure of too much more preparation time. They cited as example study trips (even around the campus); involvement of Spanish-speaking adults in the community in such activities as taped interviews, informal talks to the group in Spanish, and preparation of some of the exercises and narrations that accompanied materials; biology experiments and demonstrations conducted in either class and explained in Spanish and more frequent panel discussions. They also thought that students in more advanced Spanish courses or students who were native speakers could be used to make tapes for the classes.

As a result of this study and the interest expressed in it by other foreign language teachers in the county, the audio-visual department circulated more foreign language films and filmstrips, started a tape library, and plans to expand the inventory of such materials not only in Spanish but in other foreign languages as well. The Director will also work closely with the Strathmore and Exeter teachers in their expanded program next year and provide materials, equipment, and services to carry on the study.

All materials prepared during the course of the study are on file as part of these reports. Prepared tapes are available as reference.

WHAT'S HAPPENING IN CALIFORNIA SECONDARY SCHOOLS

BY WILLIAM N. McGOWAN*

L. W. Hedge, Past President of the *California Association of Secondary School Administrators,* Chairman of the *CASSA Accreditation Committee,* and Principal at *Bakersfield High School* made a unique, inspirational, and challenging opening-of-school address to his faculty. It is impossible to present it in its entirety, because of the nature of the presentation, but the narrative portion is included here to give an idea as to the content.

If you will remember that Mr. Hedge is talking to his faculty in terms of understandable pride, and read the first few paragraphs rapidly, you will get an idea and a message from the whole account that is well worth perceiving.

Prior to the presentation, Mr. Hedge and members of his staff toured the countryside interviewing and taking color pictures of representative Bakersfield High School graduates. He asked them who they remembered as teachers and why. This interview was tape-recorded.

On the day of the Hedge presentation, two screens were set up on stage plus a tape recorder. At the appropriate spot in Mr. Hedge's talk, a picture was shown on one screen of the person Mr. Hedge was interviewing. On the other screen, a picture of the teacher about whom the interviewed person was talking was shown, dimly at first, then strongly, then fading away. The tape recorder replayed the actual interview. The effect was dramatic.

Actual reporting of the interviews is not made here, due to space limitations. The general purpose and accomplishment of the presentation, its dynamic effect, can be determined, however. Now read on—

"We all welcome these newcomers as a part of our staff, and I wish it were possible at this time to introduce each of you to them. Instead, I

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would like to ask each member of the faculty to make a special effort to introduce them to Bakersfield High School. In doing that, I wonder what each of you would say, what you would point out that would characterize this school. Would you speak first of its size, since our 4400 students make us the largest school of the State? Would you point out the facilities that are gradually emerging from the pre-earthquake chrysalis into a modern and beautiful campus? Or would you first point out that Bakersfield High School has something of a national reputation, and was chosen by Dr. Conant as one of the schools for his historic study of American high schools? Would you then point out some of his key recommendations being considered currently as new practices in many schools throughout the United States: ability groupings which we pioneered nearly twenty years ago; summer sessions which we have had for nearly that long; and our 3300 enrollment of this past year being an all-time high? You might call attention to the counseling program which has served as a model to many schools of the State and to our unique and outstanding program for the academically-talented students; or to the fact that we set the pattern and the tone of the new high school accreditation program and had 120 outstanding educators on our visiting committee. On the other hand, you might start by calling attention to our students, past and present, and modestly mention our football championships where we are tops in the State, our track records, our Frank Gifford's, Sally Moore's, Denny Ralston's, and Richard Blick's, all national champions. You might proudly mention us as top school on Stanford's ladder and our enviable record of scholarship with Cal. Yes, you might say any of these things and many, many more in introducing one of these new teachers to Bakersfield High School, but you could do it more simply and more accurately by indicating the person next to you and saying, 'May I introduce you to an outstanding teacher,' and thus give credit where credit is due. This is the key to the fact that we have an outstanding school and the reason why we could recount a long and enviable record. That record follows, as logically as night follows day, from the fact that we have here assembled a most talented and dedicated staff, alert to the best in teaching methods, sensitive to varied needs of their students and willing to give abundantly of themselves to inspire students to combine knowledge and skills into wisdom. They recognize that facts alone are not enough and realize that there is grave danger in teaching physics without principles, chemistry without character, or mathematics without morals. Ours is the task, the opportunity, and the distinct privilege of building our youth into young men and women of sound character, high principles, and the broad understanding so needed in our world today.

"What makes a master teacher? I do not know, but I am positive that it is something that can only be developed through intense desire and

persistent effort. Being curious as to what could cause a teacher to be remembered by alumni as the one who influenced them the most, I mustered forces—Al Dennis, with his camera; Roger Lewis, with a tape recorder; and Barbara, with her shorthand notebook, and sallied forth three weeks ago to take a sampling.

"The first port of call was the office of State Senator Walter Stiern, well-known and highly regarded not only for his work in the State Legislature, but as one of several graduates practicing veterinary medicine in this community. When we asked what teacher he remembered as influencing him the most, here is his reply. *Senator Walter Stiern* . . .

"Next, we picked one of many architects who received their initial training at Bakersfield High. Let's go to the office of *Robert Eddy, A.I.A.* . . .

"Of course, not all of our graduates are in business or professions though they are holding down full-time jobs. We asked a young housewife whom she remembered among her teachers. Here is *Constance McDonald Dickson* and one of the most charming families you ever met . . .

"Since a fair percentage of our graduates enter the teaching profession, we interviewed *George Williamson,* Principal of the finest High School in Bakersfield—NORTH of the river . . .

"It is most fortunate for me that a large proportion of our local police force, specifically the Traffic Division, are graduates of this school. We interviewed *Lt. Mary Holman* who has a statewide reputation for her police work . . .

"Our survey would not be complete without interviewing one of our many successful farmers. Here is young *Bill Camp* pictured in front of a modest quarter-of-a-million dollars worth of cotton-picking machines . . .

"Next, is one of a dozen or more local doctors who graduated from BHS. Here is *Dr. Bill Moore, Jr.,* an outstanding physician and surgeon . . .

"To round out our sampling, we chose a young lawyer, past president of the local Bar Association and a member of our Board of Trustees . . .

"What makes a great teacher? I'm no nearer the answer now than I was before, but my challenge to you is this . . . Will each of you so teach this year that twenty years from now, you will be the one that is remembered as one who influenced some student most? Can you touch the hearts and lives of your students this year so as to influence them to be better adults than they would otherwise have been? Isn't that the greatest reward that it is our privilege to earn, that highest tribute that can come to one in our profession—to have someone say—'There goes the person who not only taught me well but who also pointed the way for me to a richer and fuller life—there is a master teacher!'"

SYMPOSIUM

Dr. Conant and the Junior High Schools: A Preliminary Discussion

In Portland at a national convention late in February 1960, Dr. James B. Conant was hailed affectionately as "Inspector General" for American schools by the National Association of Secondary School Principals as they presented him with a distinguished service award for his contributions to American secondary education.

At that meeting Dr. Conant gave a preliminary report of 18 points, summarizing his tentative conclusions about the American junior high school. The junior high school, in his judgment, required study before he issued his final report on secondary education. To these 18 tentative conclusions he invited attention and discussion. Following the Portland meeting, he visited some junior high schools in California, and met with the northern and southern sections of the active California Junior High School Committee. The symposium in the *Journal* this month is a report on the visits to California by the "Inspector General." The report has been coordinated by W. Earl Sams, Consultant in Secondary Education of the California State Department of Education, and known by many as "Mr. Junior High School" in California.

How much additional visitation, study, and discussion will modify Dr. Conant's proposed 18 points presented in Portland remain to be seen when his final report is issued.

For the convenience of *Journal* readers we present in this symposium:

1) An introduction by W. Earl Sams.
2) A reproduction of the 18 points originally presented at Portland.
3) A summary of one of the California discussions (the Southern California meeting).
4) Two articles by Principals of California Junior High Schools visited by Dr. Conant and his staff.

DR. JAMES BRYANT CONANT'S JUNIOR HIGH SCHOOL STUDY

BY W. EARL SAMS*

Dr. James Bryant Conant has visited many junior high schools in the nation and has met with many principals and teachers of these schools during his conscientious search for information about the instructional programs in grades 7 and 8. Any attempt to record an assessment of the influence of his visits in junior high schools across the nation is hazardous because, to some who only scan the story, it might appear that this is an attempt to forecast his findings or interpret his thinking. At this time our only purpose in preparing the statement that follows is to relate an interesting account of the wholesome influence this former college president and chemistry professor has had on all he surveyed. We admit, however, to hope for a by-product of this account, a tempering effect of other critics who purport to be interested in the welfare of education and its products, but go about the task in a tactless manner, seldom ever burdened by many of the facts.

During the spring months of 1960, Dr. Conant and staff met with the 100-man Junior High School Committee of the California Association of Secondary School Administrators in two different schools and geographic regions of the State. The northern section meeting was held at Bancroft Junior High School in San Leandro, where the host was Principal Winston Richards and the southern section meeting was held in West Junior High School of Downey with the host Principal Hanford Rants. The entire proceedings were taped at both places and later summarized for the minutes of the California administrators. Dr. Conant expressed his willingness for this to be done, providing we quoted him accurately and

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labelled our assumptions as our own unless they were unmistakably registered as his. This we have carefully done.

The remarks that were made by Dr. Conant were really secondary to the influence of his conscientious approach to the study he and his staff are making of the educational program in grades 7, 8, and 9. Here is a man who possesses the capacity to make an objective appraisal of an educational program, a critical analysis of the various elements, and a candid evaluation of the probable outcomes without offending his listeners. From the remarks made by the hundreds of educators in the State of California who were directly influenced by his presence, we can say, without fear of contradiction, that Dr. Conant possesses the capacity to bring about tremendous changes in the educational program of the nation. All of the contributors to this symposium labelled the Conant approach to a study of American education as the right approach. "His scrutiny of our instructional programs for these youth has been good for us." His engaging manner and honest inquiry into those features of the junior high school program demonstrates that he and his staff are qualified to render a judgment on the methods and curriculum content in schools possessing grades 7, 8, and 9.

PAYING EXTRA FOR EXTRA WORK

A survey of practice in 493 school systems for the school year 1958-59 shows that teachers having special assignments beyond regular teaching duties receive extra pay for those duties in most systems. Here is the breakdown by type of assignment:

*Per Cent of Personnel on Extra Assignment Receiving Extra Pay in School Districts, 30,000 and Over in Population**

No. Reporting Districts	Coaching Athletics	Directing Bands	Directing Dramatics	Sponsoring Publications
493	95.5%	62.3%	42%	37.3%

* Source: NEA Research Division.

There is no indication of the amount of extra pay. In regard to coaching of athletics, for example, only 4.5% of the reporting school districts report that coaches are not paid extra. They may receive extra time-off from teaching in lieu of extra pay. Many superintendents and principals say that time-off provisions may cost more than extra-pay arrangements, may unfavorably contribute to teacher shortage, and may impair teachers' morale.

On the other hand, nests of problems arise in extra-pay situations as indicated by questions like these: Who pays the extra pay? Does it come out of athletic funds or school board budget? How can extra work be assessed with fairness to all teachers on extra assignment? What basis for computing extra pay—by the hour, by pay period, by total job? When is the extra pay paid—with the regular pay check or separately? Here are questions, issues and possibly educational headaches for secondary-school principals and superintendents.

DR. CONANT'S 18 POINTS ON JUNIOR HIGH SCHOOLS

The following material is taken from the mimeographed news release of Dr. Conant's speech delivered at the annual national convention of the National Association of Secondary School Principals in Portland, Oregon, on Saturday, February 27, 1960.

• • • •

What follows is a list of some 18 points which represent my present tentative convictions which, of course, are subject to change. These are the points I would make at this time if I were presenting my final report to citizens interested in public education. I shall look forward to the reactions of the panel.

1. My first conclusion is that I do think grades 7 and 8 are extremely important from at least two points of view which are closely allied. First, it is in these grades that pupils are in the transitional stage of early adolescence; most are neither children nor adults. The early adolescent period, as I need not remind you, gentlemen, is indeed a very special one physically, emotionally, and mentally. Second, these grades are transitional, also, in the sense that the essentially child-centered curriculum of the elementary school meets the subject-centered curriculum of the high school and the university. I shall develop at length in my talk on Wednesday before the convention some implications of this fact. Because of the importance of grades 7 and 8, then, I do not have to tell this audience of the need for properly trained junior high school teachers. Neither the elementary school teacher nor the senior high school teacher is usually well adapted to give instruction in grades 7 and 8. This is a problem for state certification agencies and teacher training institutions.

2. Though I am fully aware of the concepts of general education and exploration in grades 7 and 8, I have become convinced that grade 8 should be fully departmentalized. That is, children should be exposed to different teachers for different subjects, and teachers rarely should be assigned outside their particular area of special competence. I should assume that by the 8th grade the delicate balance between the child-centered curriculum and the subject-centered curriculum is shifting to the

subject-matter tradition of the high school and university.

3. However, I am inclined to the view of those who feel the 7th grade should be considered as transitional between the self-contained class of grades 1-6 and the departmentalized situation in grade 8. Provided competent and enthusiastic teachers are available, I should advocate some block-time in grade 7. English and social studies are often combined in a two-period block with the same teacher, who also often has homeroom and guidance responsibilities for the same children.

4. In grade 8, or in grades 7 and 8, I believe the following subjects should be required of *all* pupils: English, social studies, mathematics, science, art, music, physical education, industrial arts for boys, and home economics for girls. In the schools we have visited and in those from which we have received questionnaires, the scheduling of these courses has varied considerably. I am aware of the preference of some junior high school people for the 6-period day with long periods for supervised study, but I should prefer more flexibility than afforded by the 6-period day. For this reason, I should advocate a 7-period day, or, in any case, a longer school day with more flexibility than some schools have at present.

The following program is illustrative of the flexibility I think is needed. It calls for a 7-period day with each period 50 minutes in length, a 30-minute lunch period, and another 33 minutes which would include a 15-minute homeroom period and 18 minutes for passing time. This calls for a total school day of 6 hours and 53 minutes, or a school day from 8:30 A.M. to 3:23 P.M. This is a long day, but many schools are in session for this long a time. (Of course, if the periods were shortened to 45 minutes, this would cut 35 minutes from the total length of the day.) Remember that this is an illustrative program only.

WEEKLY PROGRAM GRADES 7 AND 8
REQUIRED OF ALL

5	English	Possibly block-time in grade 7
5	social studies	
5	mathematics (algebra for some in grade 8)	
5	science	
5	physical education	
2	fine arts (art and/or music)	
2	industrial arts (boys) (1 double period) home economics (girls) (1 double period)	
2	activity periods (assembly, orchestra, clubs, student council, etc.)	
31	Total required periods per week	
4	optional periods	
35	Total periods a week	

The 4 optional periods a week would be used to meet individual needs and interests in foreign language and any required subject in which additional work seems advisable. In other words, these periods are for both remedial and enrichment purposes. For example, one kind of student may take 4 periods of foreign language; another student, 4 periods of reading instruction; another student, extra periods in mathematics; and still another student, extra periods in industrial arts or art and music. Note that industrial arts and home economics are scheduled for 1 double period a week in grades 7 and 8. If 2 double periods are scheduled in grade 8, more time could be devoted to art and music in Grade 7.

There are a few more points I should note about this program. First, I gather that relatively few schools schedule physical education every day. From what I have heard, drastic revisions of the physical education program may be in order in many schools before the ideal of 5 periods a week can be achieved. Five days of a poor program is no better than two or three days. The 6-period day will stand in the way of physical education every day, and it will stand in the way of the introduction of foreign languages in grades 7 and 8. I shall come back to the matter of foreign language and algebra but will point out that if some students begin a foreign language earlier than grade 9, something in the program must give way in a fully scheduled 6-period day, generally fine or industrial arts. The same problem does not pertain to the earlier introduction of algebra because all students take mathematics anyway. Lastly, note that science is a full-time subject in this program. We find increasingly more attention paid to science in these grades than in the past.

5. In the 9th grade, I assume the curriculum will provide for the introduction of the usual sequential elective programs as well as the continuation of the required courses in general education. I assume that many students will keep up their interest in art, music, and industrial arts, while others will elect foreign languages and algebra instead of general mathematics. I think personal typing might well be a subject appropriate to the junior high school grades. I suspect the 6-period day is responsible for what seems to me a bad choice in some schools in grade 9—namely, the choice between science and foreign language.

6. From what we have seen and heard, my tentative conviction is that in the fully departmentalized 8th grade there should be ability grouping, preferably subject by subject in the areas of English, social studies, mathematics, and science. As with the senior high school, I should envision three groups, the bulk of the students in a large middle group. I am not impressed with grouping that commences with the assumption that all the band members must be scheduled together across-the-board so they can practice together.

7. My reasons for advocating ability grouping stem equally from con-

cern about the very bright student and the very slow reader. As you are all so well aware, the reading ability spread among junior high school pupils is extremely great. Some pupils physically are young adults, others are children; and some pupils read like adults, others like children. I have found increasing interest in the reading competence of students in the junior high schools and a tendency to introduce remedial and developmental reading which is in addition to the regular English class. The use of reading level tests as one of the major criteria for placing students in different groups seems to be on the increase. I venture to think such tests are preferable to I.Q. tests since they seem more relevant and are easier for the general public to understand. I cannot stress enough the increasing interest, especially in the large cities, in the whole reading problem. The teaching of reading has ceased to be an elementary school problem; it now is a function of the schools at all levels.

8. I would assume, then, that there should be full-time guidance personnel to direct the testing program, to coordinate it with the guidance program and to plan and provide for the implementation of all guidance—educational, personal or group. These guidance officers, with aid from the senior high school, often help junior high school pupils make decisions about their senior high school programs—thus insuring continuity. In grade 7 the block-time teacher has special responsibilities in guidance.

9. Among the new trends I mentioned earlier was the early identification of at least the highly gifted and the provision of an accelerated program in some areas for them. These students, having finished 8th grade arithmetic at the end of the 7th grade, may start algebra (or a course in one of the new brands of mathematics) in grade 8. This procedure seems to me a most promising development, but opinion has not yet crystallized as to how large a percentage of the school should be included in the group, nor to how this group should be formed. Does the student elect the course, or is he selected for it? There are many problems in this area. If as many as 20 per cent of the 8th grade start algebra in that grade, by no means all of them will be taking the most advanced mathematics courses in the senior year. But this procedure should lead some pupils in the 12th grade to a considerable amount of study in courses of college calibre. Coupled with the Advanced Placement Program, this earlier identification means a highly gifted youth could finish college in three years instead of four. This shortening of the formal education period is important for those who are going on for study in medicine, law, arts and sciences. Such a program is suitable only for the very able, and there may be a danger in a few schools that some with insufficient ability will be guided into the Advanced Placement Program. There is also the problem of articulation in grades 7-12.

An acceleration of the science program with the introduction of biol-

ogy or a special physical science course in grade 9 for bright students is equally promising but brings up the same kinds of problems. Will the same students who take algebra in grade 8 also take biology in grade 9? Do the students elect the course or will they be selected for it? What happens in grade 12?

One of the most interesting developments in recent years is the introduction into both the elementary and junior high schools of what I call the "American approach" to the teaching of a modern foreign language. I call it "American" because the hearing-speaking introduction to the language is quite different from the traditional or European method which starts with translation and the memorization of vocabulary. In either case, of course, the goal is mastery. On Wednesday I shall spend considerable time discussing the new approach, for there are serious implications for the whole school system. Very quickly, my conclusion is that *only* if a community has the funds, public opinion so desire, and really qualified teachers can be obtained should instruction start in grade 3; otherwise, it should start in grades 7 and 8 for those pupils who can profit from it. I would assume that most pupils would still begin in grade 9. The two major problems that must be faced are those mentioned in connection with mathematics and science—namely, identification of the students and articulation of the program grades 7-12, or grades 3-12.

10. The whole matter of articulation is something the superintendents and principals at all levels should be very much concerned about, and the problem will increase as more attention is paid to individual needs and as earlier differentiation takes place. In every school system there should be a carefully worked out program grades 1-12 in all areas. I gather some subject areas are organized sequentially, while others may be analogous to a spiral, covering in successive years basically the same concepts at more sophisticated levels. Whatever the approach to content, careful planning is necessary whether the area is foreign languages, science, or social studies. For example, I suspect a lack of articulation between American history as often presented in the 8th grade and American history as given in the senior high school. There is usually much thought and attention given to social articulation of children moving from one school to another, but I gather that often there is far less academic articulation. I would guess that an increasing problem of the separate junior high school will be the matter of academic articulation, whereas I would guess that a major problem of the six-year high school is a proper concern for the social development of young adolescents.

11. While on the subject of social studies, I must say that, though I deliberately shy away from matters of content, I do find that teachers and administrators alike are seeking more emphasis on geography in grades 7 and 8. Likewise, there is more attention being paid to English

composition in grades 7 and 8. Students in these grades should spend a considerable portion of their time in English classes developing skill in writing varieties of sentences, paragraphs, and even short essays.

12. I have become more impressed than ever with the important place of the library in the operation of the schools I have seen. All schools, to my mind, should have a fully qualified librarian who runs a well-stocked central library easily accessible to students. Teachers often bring their classes into the library for entire periods. Classroom libraries are effectively utilized.

13. Having spoken at length about pedagogic matters, I should stress the importance of activities and facilities that promote the social as well as the academic development of children in grades 7 and 8. Dramatics, musical activities in the form of choruses and orchestras, intra-mural athletics, dances—these have their place in the transitional years of grades 7 and 8. A gymnasium and auditorium become necessities. And clearly these students are at an age when a certain amount of self-government through the homeroom organization and a student council begins to have meaning in the development of an understanding of democracy. I have noted a tendency in some schools to restrict the number of activities and clubs to those in which there is genuine interest and to tie in the clubs especially with regular classroom work. The result is really an extra period of science or music, for example.

14. I believe in these activities so long as they have educational value but not when the children are exploited to make a field day for the public or to build up the reputation of a coach. I am sorry to report, for example, that in many localities the community interest in football and basketball has been almost a determining factor in the placement of the 9th grade in the school organization. I had not been aware that inter-scholastic rivalry involved the junior high school, as well as the senior high school. I offer my sympathy to you principals if community pressures in this regard operate in your schools. I have already mentioned my skepticism of grouping and scheduling based on band membership, and I deplore the substitution of band for physical education. I know that in some communities those activities based on competitive athletics and public performance have gone much too far.

15. Though it is true that these 7th and 8th graders have a long and full school day, many schools indicate that from one to two hours of homework per night is expected of these young adolescents. It would appear that some teachers at the senior and junior high levels since Sputnik have been pressured into more homework without thought given to its quality. It is not for me to tell you professionals that drudgery is hardly a guarantee of learning. Nonetheless, I do see a place for meaningful homework which is preceded in the classroom by a careful explanation of what is

to be done. A progression from one hour per day in grade 7 to two hours by grade 9 seems not excessive. What is the reaction of the panel members?

16. Homework suggests marking and policies in regard to promotion. You may recall in my first report I made a distinction between required and elective courses. My recommendation was that, in the senior high school, pupils should be marked in accordance with their effort and ability in the required courses, but that strict standards should be maintained in elective courses. I would maintain these same high standards in any elective courses at the junior high level. However, the nature of the problem is different in the required courses in the elementary and junior high schools. In grades 1-8 there is the necessity to develop certain basic skills. It may take some pupils longer to develop these skills than others. This fact implies that standards other than effort and ability do enter the picture in required courses in skill areas below the senior high school level. In our present graded structure, this fact also implies that some students may be retained, though certainly, I should think, for no more than two years. I think the non-graded primary is a promising development, and it does have special bearing upon the early acquisition of the basic skills.

17. I am now going back to the matter of organization which at the outset I indicated could not be profitably discussed without first considering the curriculum. Often, of course, such factors as existing building facilities will determine whether a system is organized in a certain way—6-3-3, 6-6, 8-4, and so on. I have heard, too, that state laws, including aid formulas, may influence the decision one way or the other.

My own conclusion, as a result of talking with a number of teachers and school administrators, is that there is no overwhelming evidence whether grade 9 belongs with grade 10 in a senior high school or with grade 8 in a junior high school. I should be interested in the reactions of the panel members to my explanation for this lack of consensus among professional educators. Clearly, no 9th grade is homogenous with respect to the maturity of the pupils—the ages alone cover a two-year span, and boys and girls of the same age mature at different times. Therefore, it would seem that some boys and perhaps many girls would fare better in terms of this "social" argument (using the term in its widest sense) if the break between junior and senior high schools were between the 8th and 9th grades; others might fare better if the break were between the 9th and 10th grades. It might be argued that purely pedagogic considerations point toward including grade 9 with the senior high school, since the elective program traditionally begins in grade 9, as does promotion by subject. Does one promote a boy to grade 10 of the senior high school who fails a required course in grade 9 of the junior high school? In any case, it is my guess that both pedagogic and social factors must be weighed

together. I know of two similar communities which recently arrived at opposite conclusions about the place of grade 9.

While I can find no overriding consideration to settle a controversy between the merits of a three-year and a four-year senior high school, I did hear many arguments in favor of an organization which provides an 8th grade of at least 125-150 pupils—an enrollment one usually does not find in the eight-year elementary school. (And if you accept the conclusion of my first report that the 12th grade should have at least 100 pupils, the total enrollment in the 9th grade, however distributed among junior high schools, must be at least 125 pupils because of the inevitable drop-outs.) At least 125-150 pupils will be needed in the 8th grade if one is to departmentalize satisfactorily, group satisfactorily, and offer a broad program that will include industrial arts and home economics. A three-year separate junior high school would then enroll about 450 pupils. This I would certainly consider a minimum figure for a separate junior high school because of the expense of the program. In order to utilize teaching specialists economically and expensive facilities as well—library, shops, gymnasium, auditorium, and so on—an even larger enrollment may be preferable. For highly efficient operation, my guess is that something like 600 to 800 students are needed in a separate junior high school.

Two illustrations will show why. With 750 in a school, there will be 250 in a grade, or 125 boys per grade. If industrial arts is required either twice a week in grades 7 and 8 or four times a week in grade 8, and if there are about twenty boys per class, there will be either twelve classes meeting twice a week or six classes meeting four times a week. In any case, the industrial arts teacher will be teaching twenty-four periods a week. Add a few for electives in grade 9 and one has an economical use of a specialist teacher. The only way to use that teacher full-time with a smaller enrollment is to cut class size or increase the requirement in industrial arts. The same reasoning holds for any subject in which boys and girls are separated.

As a second illustration, unless one has a large enrollment in grade 8, the temptation will be either to include too many students in accelerated 8th grade algebra and foreign languages or not to offer these courses at all because the classes would be too small.

Actually, the logic of the arguments I have presented, especially in regard to departmentalization in grade 8, points to a 7-5 system with grade 8 enrolling 125-150 pupils as a minimum. The elementary schools could be located widely throughout the district and need contain no more pupils per grade than those accommodated in a single class, provided one were willing to postpone departmentalization and the offering of industrial arts and home economics until grade 8. (Interestingly, the State of Virginia now bases its high school graduation requirements on a five-

year program. In 1952, 53 per cent of Virginia's secondary schools were six-year high schools.) Of course, in many traditional 8-4 systems, the enrollment in grades 7 and 8 is so small that few, if any, of the facilities and offerings I have spoken of can be provided except at considerable expense. In densely populated communities, grade 8 in such schools may be of sufficient size to yield 150 pupils or more. But the question remains as to whether the social needs of the adolescent are met by such a situation or whether in the elementary school special provision should be made for treating grades 7 and 8 as a unit.

I shall mention only one more system—namely, the 6-6 which is prevalent in many parts of the United States, particularly in rural areas. In 1952 there were two and one-half times as many six-year high schools as there were separate junior high schools, though the average enrollment of the junior high schools was 50 per cent higher than that of the six-year schools. It could be argued that a newly reorganized district might well consider organizing on a 6-6 basis especially with a very small enrollment in grades 7 and 8. There are at least four advantages to such a set-up. First, the overhead and cost of the building is spread over more pupils. Second, grouping, departmentalization, and special classes for bright pupils are more likely to be possible than if the pupils in grades 7 and 8 are spread among several elementary schools. Third, the pupils in the junior high school grades can share the special facilities and specialized teachers with the senior high pupils. And fourth, articulation of the whole program 7-12 is facilitated by this arrangement. Of course, there are important arguments against the six-year school. One is the cost of bussing more children in rural areas. The second is the problem of mixing 7th graders with 12th graders in the same school. Though some of the pedagogic arguments may be good for the six-year school, the social arguments are not, and principals of these schools should make certain that sufficient attention is paid to the younger students. Furthermore, there is the necessity to see to it that the poorer teachers are not relegated to the lower grades.

18. Last but not least, if I were addressing citizens, I would stress the importance of the principal. I have been more impressed than ever this year with the leadership role of the principal. Time and again we have found that good schools invariably mean strong leadership.

DR. CONANT LOOKS AT GRADES 7, 8, AND 9

The statement that follows is a summary of the Conant meeting in Southern California, as reported by Mrs. Mona G. Crombie.*

As of March 1960 Dr. Conant and staff had visited 145 junior high schools in some 70 communities in 19 states. The major concern of the present study is (1) providing adequate instruction in grades 7, 8, and 9, and (2) organizing a school system so that the work of these three grades is properly connected with both the elementary school and the senior high school.

All members of this study group were amazed at the great variety of organizational patterns 6-3-3, 8-4, 6-6, 5-3-4, 6-2-4, and even 7-1-4. States Dr. Conant: "Diversity with respect to both the place and program of grades 7 and 8 is the first rather obvious fact I have to report. The only trend that most people seem to agree upon is that an increasing percentage of adolescent youth are commencing secondary school, not in the 9th grade as in the traditional 8-4 system, but at least by the 7th grade. In many schools the program and practices are as much in flux as the grade organization itself."

Curriculum trends noted:

1. In large cities considerable experimentation in teaching algebra to the *top* math students in grade 8.
2. A change in the program in science: increased requirements and a more specialized course in the 9th grade for bright students—either biology or some form of physical science.
3. Better articulation of the entire program in the various curriculum areas, grades 1-12.
4. Heterogeneous grouping in academic areas is the exception rather than the rule.

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5. A retreat from the core concept toward a structured program, even in those parts of the country known for their core programs. The reason given was usually the same—lack of qualified teachers.
6. A severe reading problem in many schools. "Ordinarily, there is much more involved than a pedagogic problem, but we have been impressed with the efforts being made in some schools and some school systems to meet the situation."
7. An increase in the number of schools operating with a 7-period day.
8. A definite schedule for homework.
9. Summer school enrichment programs increasing at a rapid rate.
10. The term "gifted" being flagrantly misused.

Dr. Conant was surprisingly impressed with some educational programs found in California Junior High Schools. He has visited a number of junior high schools following the Portland N.A.S.S.P. Convention and has revised some of his conclusions. Following several small group meetings in northern and southern California in which Dr. Conant and staff invited the reaction of those present, certain conclusions and doubts have been stated. These are summarized as follows:

1. The transitional years. Grades 7 and 8 are extremely important from at least two points of view which are closely allied.

   a. It is in these grades that pupils are in the transitional stage of early adolescence; most are neither children nor adults.
   b. These grades are transitional, also, in the sense that "the essentially child-centered curriculum of the elementary school meets the subject-centered curriculum of the high school and the university."

   "Neither the elementary school teacher nor the senior high school teacher is usually well adapted to give instruction in grades 7 and 8." Dr. Conant came to the West Coast believing that this was a problem only for teacher training institutions and was shocked to find out that teacher trainees, to a great extent, were interested in teaching in junior high school only if they could not qualify for a higher secondary level. He felt that several factors contributed to this situation.

   a. The problem of status of the junior contrasted with the senior high school teacher and administrator.
   b. The type of credential required of the junior high teacher by the hiring board.
   c. Teacher load in junior high schools, as compared to the senior high schools; some added responsibilities for junior high school

teachers are homerooms and the guidance that goes with it, six teaching periods, extracurricular activities and extra supervisory duties.

2. *Physical education.* "In each year there should be physical education and health every day, . . . but remember that five days of a poor program is no better than two days of a good program. A program should be built to help boys and girls grow. This is the time when children need help in growth every day. The principal is responsible for a good health and physical education program. On the one hand you [principals] ask for more guidance help because of the psychological problems of early adolescents, but on the other hand some of you do practically nothing to see that your physical education programs fit the needs of the students."

   "Of course interscholastic athletics have no part in the junior high program. You know my feelings on this point by now. I am opposed to interscholastic competition because of pressures involved—pressures which build up. Keep parent pressures out of intra-mural activities; there are tremendous parent pressures on junior high school administrators in the wrong direction."

3. The 7-period day. "I am aware of the preference of some junior high school people for the 6-period day with time for supervised study, but I should prefer more flexibility than afforded by the 6-period day. For this reason, I should advocate a 7-period day."

   Fifty minute periods seem advisable, but a program of even 7 periods of 45 minutes length is better than a 6-period day. The length of the day might depend upon local situational factors such as bus transportation. The possibility of double periods for some classes should be investigated; it can provide opportunity for remedial work and enrichment experiences.

   "I am not suggesting that the teacher load be increased from a 5 to a 6-period day. I would prefer to see additional teachers added. However, we need to be realistic about this. There are many places in Northern California as well as other localities where teachers are teaching six periods; there are many places throughout the country where this is common practice. But let me say here that I am not suggesting a procedure for junior high school teachers different from that of senior high teachers. The same rule should apply to all secondary teachers in a district (meant same number of teaching hours). Let's face it, most teachers will be teaching a 6-period day very soon anyway. There is no other way out."

   "I'll be in hot water whichever way I suggest. The teacher won't like it if I suggest six teaching periods, and the school boards won't like it if I suggest adding teachers to the staff."

4. *Departmentalized 8th grade.* "Though I am fully aware of the concepts of general exploration in grades 7 and 8, I have become convinced that grade 8 should be fully departmentalized. That is, children should be exposed to different teachers for different subjects, and teachers rarely should be assigned outside their particular area of special competence. I should assume that by the 8th grade the delicate balance between the child-centered curriculum and the subject-centered curriculum is shifting to the subject-matter tradition of the high school and university." An exception here was noted for the slow-learner. Dr. Conant and staff felt that these people were better off in a block-time situation, but not in a block of time which runs for consecutive periods with the same teacher.
5. *Seventh grade block.* The 7th grade may be considered as transitional between the self-contained class of grades 1-6 and the departmentalized situation in grade 8. The 7th grade student needs a teacher for two periods. In some schools where the majority of students are academically inclined and there is adequate provision for guidance through a homeroom which is taught by a teacher who also has the students for an academic class, there could well be complete departmentalization in grade 7.

   If a block time is used in grade 7, the English and social studies should make up the block. Science and/or mathematics should never be coupled with either of the above two subjects. If block time is used, superior teachers should be encouraged to integrate the courses. Dr. Conant said that he had examined work in good core classes and of them he quipped: "I have been to the museum and seen the exhibit."

   There is no scientific evidence supporting the separate points of view regarding block-time classes. Many junior high schools have very high achievement with complete departmentalization in all grades. The other side of the issue is the psychological—the child needs a "home base." This last viewpoint could be offset with a good homeroom program in which a teacher has the same students for the three years.
6. *Required subjects in grades 7 and 8.* The following subjects should be required of all pupils in grades 7 and 8: English, social studies, mathematics, science, art and music, physical education, industrial arts for boys and home economics for girls.
   a. For those capable, foreign languages should be encouraged in both grades 7 and 8. The 6-period day will stand in the way of this.
   b. A full year of science in grades 7 and/or 8.
   c. The equivalent of one year of home economics and industrial

arts for girls and boys respectively and one year of the fine arts. This could be spread over a two-year period with the use of some double periods, or could be a 5-unit class. One year of required work is sufficient, but these subjects should be available for all students in all grades.

d. "Personal typing should be taken *before* grade 9. Again, the 6-period day interferes with programming into this subject."

7. *Curriculum in grade 9.* There should be provision for the introduction of the usual sequential elective programs as well as the continuation of the required courses in general education. Many students should keep up their interest in art, music, and industrial arts, while others will elect foreign languages and algebra instead of general mathematics. The assumption here is that *all* 9th grade students will take some kind of math. "I suspect the 6-period day is responsible for what seems to me a bad choice in some schools in grade 9, namely the choice between science and foreign language."

8. *Ability grouping.* There should be ability grouping, particularly in the fully departmentalized 8th and 9th grades, and preferably, subject by subject in the areas of English, social studies, mathematics, and science. It is recognized that complete homogeneity is impossible. "I should envision three groups, with the bulk of the students in a large group. I am not impressed with the grouping that commences with the assumption that all more capable learners must be scheduled together across-the-board. No achievement test scores can validate this type of reasoning."

"The use of reading level tests as one of the major criteria for placing students in different groups seems to be on the increase. Such tests are preferable to the I.Q. tests since they seem more relevant and are easier for the general public to understand. My reasons for advocating ability grouping stem equally from concern about the very bright and the very slow reader. Some junior high students read like adults, others like children. There is an increasing tendency across the country to introduce remedial and developmental reading in addition to the regular English class—not in place of it. The teaching of reading has ceased to be an elementary school problem; *it is now a function of the schools at all levels.*"

9. *Guidance.* There should be full-time guidance personnel to direct the guidance program; at this time, Dr. Conant thinks he will recommend one full-time person for every 300 students. Homeroom and block-time teachers should fulfill their obligations in the area of counseling and guidance. In the ratio of 1-300 students, the district psychometrist, psychologist, homeroom teacher, and other such

personnel are considered a part of the ratio.

Dr. Conant prefers a full-time person rather than a part-time teacher and counselor but has met some opposition in California from some junior high principals who wish to use the teacher-counselor as an in-service education activity to provide opportunity for teacher growth. Upon investigating schools following this plan, Dr. Conant has reinforced his opinion regarding the full-time counselor because of having seen much "controversial and biased counseling" by those with little training. He feels that (a) teacher-counselors contribute to poor school morale, and (b) they do not make for continuity in a program of studies from 7 through 12. Excluded here are qualified counselors doing part-time teaching.

10. *Acceleration:*

Algebra in Grade 8. The procedure of an accelerated program in mathematics for the highly gifted in math seems to be a promising development, but opinion has not yet crystallized as to how large a percentage of the school should be included in this group, nor how this group should be formed. If as many as 20 per cent of the 8th grade start algebra in that grade, by no means all of them will be taking the most advanced mathematics courses in the senior year. The early identification of the highly gifted should mean that they could finish college in three years instead of four. This is advisable for those going on for study in medicine, law, arts and sciences.

There are many dangers in this type of program. It is suitable *only* for the very able and some schools will include students of insufficient ability. Then there is the problem of articulation. Algebra should never be introduced into the 8th grade unless there is the proper following sequences with an Advanced Placement Program the ultimate goal. Unless geometry is offered in grade 9, there is no place for algebra in grade 8, even for the very gifted.

Administrators need to be careful what college people they listen to when discussing the place of algebra in the program of studies. Some colleges are part of the Advanced Placement Program for gifted students and some are bitterly opposed. Each has his own reasons. (Conant views favorably the Advanced Placement Program for the *very gifted.*)

Science program. An acceleration of the science program with the introduction of biology or a special physical science course in grade 9 for bright students is equally promising but brings up the same kind of problems.

Foreign languages. One of the most promising developments in recent years is the introduction into the junior high schools of

"what I call the 'American approach' to the teaching of a modern foreign language. I call it 'American' because the hearing-speaking introduction to the language is quite different from the traditional or European method which starts with translation and the memorization of vocabulary. In either case, the goal is mastery."

"The new approach has serious implications. *Only* if a community has the funds, public opinion so desires, and really qualified teachers can be obtained, should instruction start in grade 3 as is the case in some districts. Otherwise, it should start in grades 7 and 8 for those pupils who can profit from it. The six-period day will stand in the way of this. I would assume that most pupils would still begin their languages in grade 9. At every grade level the language teacher should be bi-lingual."

All students interested and having the ability should take four years of one language. This student should be able, at the end of his 12th year, to read the daily paper in the language studied and converse intelligently with the native people in their language regarding items therein.

Articulation in foreign languages is going to be an increasing problem. Even though the "American approach" is gaining with amazing rapidity, a few old timers will still wish to cling to the traditional method and immediately upon transition from the first method to the second, students will become discouraged and uninterested.

Dr. Conant is opposed to exploratory courses wherein a student studies several languages during the year. His thinking is that this material might well be studied in the social studies classes if it is that important to understanding a culture or country. "This is not foreign language."

11. *Articulation.* The whole matter of articulation is something administrators at all levels should be very much concerned about, and the problem will increase as more attention is paid to individual needs and as earlier differentiation takes place. In every school system there should be a carefully worked out program for grades 1-12 in all areas.
12. *Social Studies.* There is great need for more emphasis on geography in grades 7 and 8 and attention is being given to this fact in many cities.
13. *English.* There needs to be more emphasis on English composition in grades 7 and 8. Students in these grades should spend a considerable portion of their time in English classes developing skill in writing varieties of sentences, paragraphs, and even short essays.
14. *The Library.* "In the best schools I have seen, the library is the

center of the operation of the schools. All junior high schools should have fully qualified librarians who run a well-stocked central library easily accessible to students and teachers. Teachers should be able to bring their classes into the library for entire periods. The librarian should not have to be concerned with the menial tasks of checking in books and cataloging them; her place is with the students and teachers when they are in the library.

15. *Activities.* There is need for activities and facilities that promote the social as well as the academic development of students. Dramatics, musical activities in the form of choruses and orchestras, intra-mural athletics, dances—these have their place in the transitional years of schooling. A gymnasium and auditorium become necessities. A certain amount of self-government through the homeroom organization and a student council begins to have meaning in the development of an understanding of democracy.

    "I believe in these activities so long as they have educational value but not when the children are exploited to make a field day for the public or to build up the reputation of a coach. . . ."

16. *Homework.* "Though it is true that these junior high students have a long and full day, many schools indicate that from one to two hours of homework per night is expected of these young adolescents. It would appear that some teachers at the senior and junior high levels, since Sputnik, have been pressured into more homework without thought given to its quality—a progression of meaningful homework from one hour per day in grade 7 to two hours by grade 9 seems not excessive."

17. *Promotion policies.* Dr. Conant would maintain the same high standards in any elective courses as at the senior high school level. However, he indicated that the nature of the problem is different in the required courses in the junior high schools, for here there is the necessity to develop certain basic skills. It may take some pupils longer to develop these basic skills than others. Therefore, standards other than effort and ability enter the picture in required courses in skill areas below the senior high school level.

18. *Organizational patterns.* Many factors such as state laws, density of population, and aid formulas, may influence the decision for one type of organization or another. "I came to California with the feeling that there is no overwhelming evidence whether grade 9 belongs with grade 10 in a senior high school or with grade 8 in a junior high school. I have seen evidence here which would influence my thinking in favor of 6-3-3. In cities such as those we have visited in California, I have been most impressed with the 3-year junior high."

THE DR. CONANT VISIT

BY HANFORD RANTS*
ENNIS E. FOXWORTHY†
AUDREY STAFFORD‡

The warm feeling of accomplishment that came with the news that Dr. James B. Conant would visit our campus was soon replaced with a variety of anxious thoughts about how our school would measure up. This great educator's well accepted opinions sometimes favored junior high schools and sometimes pointed out apparent weaknesses. The easy way to parry any thrusts would be to wait quietly in the background and make adjustments on the basis of shortcomings laid bare in other schools, but a school proud of its efforts and traditions simply had to be judged honestly by the foremost expert. Among the thoughts crossing the minds of the administrators of schools to be visited were:

1. How will the teachers perform under observance of the master?
2. Will the students be having a streak of spring fever or will they be pressing on with their very best effort? Certainly the students could not be expected to know and to respect this person whom educators consistently look to for words of wisdom.
3. Will the administrators themselves make the proper moves to verify their competence?

Of course, the final days before the Junior High Committee of CASSA meeting saw moments of panic, of conflicting thoughts. Would there be a dearth of ceremony or too much formality? With arrangements completed, the facilities seemed at first most adequate, then perhaps a little short of what a school should have.

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The arrival of Dr. Conant on March 12, 1960 was not at all earth shaking and quite without great ceremony. From the very first look, an observing person could see many interesting and somewhat unexpected qualities in this man. Rather than an aloof man with serious countenance, we saw relaxed and pleasant eyes which seemed to sum up at a glance everything in range. A few minutes of conversation with this former college president evinced the reasons for his fame. He listened with sincerity as others spoke, and in answering selected his words thoughtfully. Approximately three minutes with the chairman was sufficient to determine the course to be followed on the agenda, as Dr. Conant was scheduled to take over and guide the discussion of vital school issues. From the moment he was introduced, there was little doubt as to his knowledge and ability in matters concerning education. As his staff members—Franklyn White, Professor Gaffney, and Alden Dunham—were introduced, a feeling of deep and mutual respect was much in evidence and certainly a little envy must have been in the hearts of the forty-five junior high school principals gathered for the meeting.

Although a well versed moderator would be hard pressed to run a give-and-take discussion of controversial educational points and principles, Dr. Conant moved through the program exhibiting astounding physical strength as well as an amazing capacity to listen, understand, interpret, judge, and to respond to every question posed.

The core enthusiasts had their say as did those who favor departmentalization of classes, while as keen listener, Dr. Conant drew out more and more information through artfully directed questions. Every word said on March 12 is on tape available to anyone interested, but only an eyewitness could see the humility and respect for differing points of view displayed by this ex-Harvard president. The entire group of administrators was deeply impressed by the open mind they found in this chemist, whose conclusions were based on research and findings actually in existence. We had felt that we would be told not only of superior programs but would receive word from a so-called expert outside our field about weaknesses in the programs we presently operate. Contrary to our thoughts, we were treated as experts and asked to contribute our thoughts to this nation-wide study of the junior high school.

This meeting of Southern California junior high administrators is history now, but the men of the group and Dr. Conant's staff must certainly have gained a great deal from each other.

Subsequently Franklyn White called at our school office on the day of his visit with all the humility and dignity one would expect of a colleague of Dr. Conant.

In our brief interview before Mr. White went to the classrooms to visit, he asked questions, listened well, and seemed to draw a mental picture

of our school operation. His conversation was refreshingly sincere, and his remarks were simple, "down-to-earth," not vague or camouflaged in sweeping theoretical statements. Among the areas viewed by the survey staff was that of science instruction with questions to be answered:

1. What grade levels offer science?
2. How many students elect science?
3. What is the course content of science?
4. What type of science is offered and what does it lead toward?
5. What of teacher preparation and plant facilities?

With a teacher like Mr. Foxworthy who has just received his fourth summer scholarship through the National Science Foundation, we were happy to present our program.

Questions concerning foreign language brought out grade levels taught and methods of teaching employed. More and more conversational language seemed to be entering the classroom at lower grade levels with the regular college preparatory language starting at grade nine. Our school provided no unusual trend other than the fact that a very high percentage of students were enrolled in language. (Three classes of 33 in a grade total of 260 students.)

Classes for the more capable learner were investigated, the teaching of the gifted being one of the most controversial issues in education today. Our system of grouping was explained while the visitor studied a master schedule. With a clear mental picture formed in record time, Mr. White mentioned homemaking and shops as areas to look in on, then went directly to his task of visitation without a guide.

During breaks, our short visits found our guest expressing pleasure at learning situations witnessed. He was especially impressed by a particular English class.

Just before leaving, Mr. White noticed our Student Council meeting and asked to sit in to get ideas for his own group in Connecticut. How interesting it was to find that our students talk of the same problems that other junior high students throughout the country do!

When our guest had gone, we could only wonder what kind of a statistic we had contributed to the junior high school study. Would a faculty of forty with a four year 100 per cent record in local, state, and national professional organizations impress this staff with the idea that junior high school teachers love their work and strive for quality? Would a student body with very high morale suggest that their plan of all activities exclusive of class time be the best way to make the most of educational opportunity? Would this student body which annually presents service pins (10-20-30 years) to teachers for service to youth show that a school-wide positive attitude toward learning makes the educational process a pleasant one for all involved?

Perhaps the answers to these questions will come in the next Conant report; however, our people are sure that hard work in class and firm, sincere leadership in all outside activities have made this situation a pleasant one to be a part of.

(The next section of this report was written by Ennis E. Foxworthy, teacher of science, West Junior High School.)

We of the faculty at West Junior High School were delighted and proud that the Conant Committee chose our school as one of those to be visited for its junior high school survey.

Mr. White of the Conant Committee visited my class in ninth grade physical science. Our ninth grade science course is an elective one designed to fit the needs of the better student who will elect chemistry and physics in the high school. Our counselors encourage the better students to take the course and discourage the weaker ones. Despite this counseling, however, a few poor students enter the class for one reason or another. Sometimes, for example, a boy's father will exert pressure on him to take the course to prepare himself, so that he may later pursue engineering or some other scientific endeavor. Sometimes the very thing that a particular student needs is a good challenge, so we admit him to the class. In a class of thirty-six there are no more than four or five such students. Mr. White was advised of the composition of the class prior to his visit.

Mr. White took a position in the rear of the room and looked over our text. The students were not made aware of the importance of our guest, so that he would be able to see a typical lesson under normal conditions. Our lesson dealt with computations involving force and motion. After a while our visitor put down the text and wandered about, looking over students' shoulders and observing their work. It was amusing to note how quickly and unerringly he spotted the weaker students. He spent most of his time looking on as they struggled with the problems we were studying.

Mr. White seemed to observe many things during his short stay. He observed the text, and the work of the students. He noted the temperature on the wall thermometer, the physical facilities including some science equipment stored in the rear cabinets, and the audio-visual drapes. It can be assumed, I imagine, that he has investigated the preparation of the teacher.

I am extremely grateful for having been permitted to participate, even in such a small way, in the work of the committee. It is my sincere hope that the committee will learn enough about our strengths and weaknesses at the junior high school level so as to be able to offer suggestions and criticisms that will help us to improve. We have been following and will

continue to follow closely the reports of the committee's findings in this great undertaking.

(The next section has been written by Audrey Stafford, teacher of English, West Junior High School.)

To write a report of the visit Mr. Franklyn White, member of the Conant committee, made to my class in ninth grade English would seem a simple enough task, inasmuch as Mr. White spent perhaps thirty minutes in my classroom and also talked to me personally for several minutes following the classroom visitation; but somehow it seems that to report factually of the visit is to oversimplify the assignment, and would miss the subtler implications of Mr. White's presence in my classroom. The reader will undoubtedly expect me to note the honor I enjoyed that a man of such stature observed my teaching, and indeed it was an honor that my school was selected for the Conant visit. Assuredly I was happy that Mr. White found his way into my classroom; *but exceeding the honor I felt was my joy that someone who really counted would observe my students in action and judge me "by my fruits."* A good many persons "who really count" have observed my teaching and have made generous remarks of my efforts, for which I am grateful and because of which I have been stirred to greater effort. Still, no previous visitor has been a member of the Conant staff, so Mr. White's visit was, in this respect, unique.

My English class is quite an academic one: much grammar, much literature (Shakespeare, mythology, poetry, etc.), much writing, much public speaking, much vocabulary building, and I hope much growth emotionally. In this statement I will not include the techniques by which I achieve what I believe to be effective teaching; suffice it to say that I will employ practically any legal method to get students to learn and to work somewhere near capacity. Because I work almost maniacally to teach well (as I believe countless teachers are doing), I was joyous to have Mr. White visit my students—see their facial expressions, hear their voices, catch rather fat glimpses of their knowledge of English. Mr. White entered our classroom unobtrusively, sat attentively, and gave evidence of enjoying his visit. I felt comfortable under his observation, and I sensed that he was judging pretty accurately from the evidence at hand the type of teacher holding forth, the nature of the students, and the school generally.

As noted earlier, I have had a goodly number of observers in my classes, and usually have felt puzzled as to what visitors expect to see in a classroom—what phase of teaching they hope to catch. On one such occasion when I was asked ahead of time if I minded being observed (and I usually do), I asked a fellow teacher what she would do if she

knew that visitors were coming—not just to visit, but especially to observe her teaching, and her remark impressed me deeply. She said: "Under pressure, the last thing most teachers want an observer to discover is the abysmal ignorance of the students." The answer determined for me that no observer should be fooled by me, that even if it were risky I would not hide my students—I would display them; and if they were abysmally ignorant of English after months in my classroom, then the great farce of a public school education would have to be exposed.

When Mr. White came, I did not hide my students, the revealers of my efforts. I felt that Mr. White was pleased with what he saw. At least, I knew that he had caught me pretty much as I really am and my students as they really are.

In our brief visit following the close of the period, Mr. White proved a friendly, comfortable man. He asked me several questions about my class, and I thought of splendid answers some hours after his departure. His questions were so casual that I scarcely felt their significance at the moment. For instance, Mr. White, having heard our lesson in grammar, asked, "What do you do other days?"

"Other days? Oh, we'll work with punctuation tomorrow," I said. Later I wondered why I had not realized that he was interrogating me about our entire course of study. I would have said, "Why, we have a poetry unit, *Midsummer Night's Dream,* etc., etc." But I didn't say it and somehow I feel it doesn't matter. He was a good observer. I think he knows.

UNVERSITY LOSES BRIGHT STUDENTS

Sour Cream –

The top 10 per cent of a group of high school seniors, which might be considered as a safebet "cream of the crop" by college admissions officers, made an undistinguished showing in a recent survey by the University of Wisconsin.

As part of a two-year study of 34,000 Wisconsin high school graduates, the university investigated the college performance of about 500 students who had been in the top quarter of their high school classes. After two years of college work, only two-thirds of those from the top 10 per cent had made a B average or better. Less than half of the whole group did as well, with one-fourth placing in the lower half of their college classes.

About 15 per cent of the top-quarter students dropped out of college before the end of the sophomore year. The reasons given for discontinuing college were most often lack of interest and difficulty with college studies, rather than financial pressures, as has been reported by numerous other surveys.

A special study of the 111 top-quarter high school graduates who attended the University of Wisconsin revealed that one-fifth of them had discontinued their studies by the end of the second year. One-half had failed to meet the minimum scholastic standard of a C average. Although about 50 per cent of the students held scholarships upon entrance, half of the group could not keep up to the required minimum B average. The lowest college grades of these students occurred in fields which they had studied in high school: science, mathematics, English literature, German and history.

—*The New York Times,* July 17, 1960.

THE JUNIOR HIGH SCHOOL SEEKS NEW FRONTIERS: A MORE FLEXIBLE SCHEDULE IS TRIED

BY EDWIN W. OLMSTEAD*

Prior to Dr. James Conant's visit to Los Angeles last March, groups of teachers and administrators had been examining his recommendations concerning high school education. In fact, our Board of Education requested that a study be made comparing our actual practices with the Conant suggestions. Many of his recommendations were found to be already a part of our program; others we agreed were highly desirable; while a few were not considered to be practical for our large metropolitan school district. However, all groups who studied the report considered it to be most stimulating and provocative.

Consequently, we were pleased when it was announced that Dr. Conant and his staff planned to include Los Angeles in his current study on the American junior high school. The four schools selected for visitation were chosen because they represented not only geographic areas but were composed of boys and girls whose racial backgrounds and native abilities represented a wide divergence of cultures. The organization and curriculum of the four schools, while operating within a common framework, presented to the visiting staff a broad comprehensive pattern of junior high school education, functioning within America's second largest school district. The flexibility necessitated by a variety of social, economic, racial, and religious backgrounds was observable and was so commented upon by Dr. Conant.

Since this writer participated in only one of the visits, obviously his comments are limited to his actual experiences. Frankly, the writer was impressed with the depth and rapidity of the questions asked not only in

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the office and at the luncheon table, but as the group moved from classroom to classroom. Those of us on the local staff were impressed that the information requested indicated that the questioners had a sound philosophical background and were aware of the major objectives as commonly defined as the imperative needs of adolescent pupils. The personal interest in young people and teachers was most pronounced.

Since the purpose of the visit was to explore the program, dozens of short answer questions were asked with very few favorable or unfavorable comments being made by the visitors. Yet, underneath the many questions ran one dominant thread—were we providing broad, continuous learning experiences, adjusted to the capacities of our student body? For the most part, our answers to specifics were in the affirmative. To a few we had to admit that our organization of the school day handicapped us and left certain goals to be desired. For example, the question was asked as to how we provided fine or practical art experiences for our highly academic ninth grade pupils. We responded that they either didn't have an art experience or that algebra or foreign language was postponed until the tenth grade. Dr. Conant related that many schools he had visited were adopting the seven-period day as contrasted to the six in order to achieve a balanced program for the three years that boys and girls are in junior high school.

We recognize that the six-period day definitely limits the pupil insofar as elective choices are concerned. One of our Los Angeles junior high schools for four years experimented with the seven-period day; however, for various reasons it abandoned the project last year. Nevertheless, the fact still remains that it is not possible to present a comprehensive junior high school program when a pupil takes only six subjects, five days a week.

Last year at Madison Junior High School we conducted in the eighth grade a pilot study in science and foreign language on a split-week basis which meant that each pupil took seven subjects per week. For the most part, the evaluation at the end of the school year revealed that it was not necessary for a pupil to be exposed to a subject five days a week in order to achieve proficiency. Both pupils and teachers expressed enthusiasm for the split-week program. Dr. Conant directed many of his questions to the evaluation of this study. Perchance the split-week program will provide a solution to many of the organizational problems of secondary education.

The most interesting by-product of Dr. Conant's visit was the stimulation given to the Madison staff to devise a master program that would provide greater curriculum flexibility and still allow the school to maintain the fifty-minute instructional period plus the twenty-minute homeroom program without lengthening the school day. A survey of master programs throughout the United States revealed many systems to be experimenting. The schedule operating at Newton High School in Massa-

chusetts was of particular interest.

After many unsuccessful attempts at building a new type of master program, the one finally selected will provide all pupils with seven subject experiences a week and will still allow the school to operate on the fifty-minute, six-period day. Social studies, science, mathematics, fine arts, and practical arts are to be offered this fall, four days a week for three years; while English and physical education will be given five days per week. Pupils interested in foreign languages may substitute a language for the practical arts in the eighth and ninth grades.

All subjects will be offered the same period of the day throughout the week with the exception of physical education, which will operate on the diagonal. This means that a pupil on Schedule A who has physical education Period I on Monday will be taking this subject Period VI on Friday. Physical education, therefore, is the subject that completes the daily program of courses offered four days a week.

Teachers, except in the English and physical education departments, will instruct twenty-four periods a week rather than the customary twenty-five, and interestingly, the teachers in each department will have their six conference periods a week at the same time. This should provide considerable opportunity for departments to do group planning and organizing.

The master program is composed of six basic patterns with each of the 2450 pupils assigned to one of the patterns. Homogeneous grouping is provided in all three of the large grade groups (B7, B8, and B9) with only partial grouping in the three small grades, but this condition existed in previous master programs due to the fact that our school system is scheduled on semi-annual promotions.

Counting homeroom, most teachers (except English and physical education) will be working with seven groups a week, and while this might be considered too heavy a load, our experiences with the split-week program did not reveal this to be a handicap so far as the teachers involved were concerned.

The objectives and actual structure of the proposed program were carefully discussed with the faculty and Parent-Teacher Association, with ample opportunity for questions. It was agreed that a careful evaluation would be conducted next spring to determine the strong and weak points of the experiment as well as to decide whether or not the program should be continued the following year.

This is going to be a busy year for the Madison staff since the adjustment in the allocation of school time to subject matter has been changed so drastically. For example, instead of one year of required science, there will now be three years, and rather than two and a half years of mathematics, there will also be three. Furthermore, the opportunities for advanced work in the fine and practical arts have been greatly increased.

Not only is the local staff and community interested in the research that will take place next year, but Superintendent Jarvis' *Graduation Requirements and Curricula Committee* has agreed to sponsor the project since the entire program of the Los Angeles secondary schools is being carefully scrutinized by this committee in the hope of evolving a more challenging program to meet the needs of secondary education during the coming decade.

Tradition and lethargy certainly constitute two of the major obstacles of American secondary education, and consequently it is gratifying to find such an educational leader as James B. Conant, willing to break the shackles by attacking the over-all problem. Too often, proposed solutions have been merely patchwork in nature as part of the additive process that has taken place during the last one hundred years of pedagogy.

Perhaps we are on the verge of a structural break-through in education which will be geared to a new dynamic society. In retrospect of Dr. Conant's inspection of Madison, and the stimulation he gave the staff, it is hoped that the facts he gleaned will contribute to an understanding of what constitutes a successful program of junior high school education.

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